

COUNTY PALATINE OF LANCASTER.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1906

WITH STATISTICAL INFORMATION
AND SUMMARY OF REPORTS OF DISTRICT
MEDICAL OFFICERS OF HEALTH, &c.

(Presented to the County Council, November 7th, 1907.)



PRESTON :

PRINTED BY T. SNAPE & Co., CHURCH STREET AND BOLTON'S COURT.

MCMVII.

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REPORT

OF THE

MEDICAL OFFICER OF HEALTH

For the Year ended December 31st, 1906.

*To the Right Hon. the Chairman and Members of the County
Council of the County Palatine of Lancaster.*

Gentlemen,

I have the honour to present to you my eighteenth Annual Report on the health and sanitation of the Administrative County, together with a summary of the Annual Reports received from District Medical Officers of Health.

Although the mortality statistics are, on the whole, satisfactory, the death-rate, corresponding to 14·62 per 1,000 of the population, shows a fractional increase as compared with 14·32, the rate for last year, and a decrease of 1·66 on the average of the 10 years 1896-1905. The mortality of infants under the age of one year also rose slightly from 132 in 1905 to 139 in the year under review, and the deaths from the seven principal epidemic diseases accounted for a rate equal to 1·97 per 1,000, against 1·37 for 1905, and 1·89 the mean of the previous decade. With respect to the immense loss of life under the age of twelve months, it is satisfactory to observe that lately the question of infantile mortality has received a great deal of public attention, and consideration has also been directed to the effects of industrial employment on child-bearing women.

Reports from all the County districts, viz., 131, came under review ; of these, 107 were printed, 14 type written, and 10 in manuscript. The special reports supplied by Medical Officers of Health under Article 18 (16) of the Local Government Board Order, 1891, numbered 131, against 71 in 1905, and 177 in 1904. The monthly returns of deaths and cases of infectious disease notified or ascertained are now received from all County districts, although certain Medical Officers of Health neglect to send with regularity the information required.

From the Exchequer Contribution Account payments have been made towards the salaries of sanitary officials under Section 24 of the Local Government Act, 1888, to 119 Authorities, *i.e.*, 15 boroughs, 83 urban districts, 19 rural districts, and 2 port sanitary authorities. The total payments during the financial year ending March 31st, 1907, amounted to £9,354 8s. 1d., of which Medical Officers of Health received £3,884 15s. 9d., and Sanitary Inspectors £5,469 12s. 4d.

In the body of the Report will be found references to the effect on health of insanitary working-class dwellings which exist in so many of the County districts—both urban and rural, but more especially the latter. The efforts of authorities should be directed to promoting a higher standard of living which will tend to create a demand by the younger generation for more commodious cottages than their predecessors were content with. According to the recent report of the Select Committee on the Housing of the Working Classes Acts Amendment Bill, “ this demand has not been met in most districts ; whilst the commercial and industrial developments of the past 50 years, the spread of education, the increase of travelling facilities, and the continued growth in the prosperity of the larger towns, have all been contributing causes to induce the younger and more enterprising among the rural people to leave the country for the towns, and have

created an uneven distribution of population in the remarkable expansion of the towns at the expense of the country districts."

Under the Sale of Food and Drugs Act, 3,065 samples have been purchased, and of these, the proportion of offences corresponded to 5·4 per cent. as compared with 6·1 per cent. in the previous year. Recognising the importance of a pure milk supply, much attention has been paid to this matter, and numerous samples were purchased for the purpose of analysis. Special inquiries as to the operation of the Dairies, Cowsheds, and Milkshops Order, 1885, also undertaken, showed that in the majority of districts the Regulations were either inoperative or inefficiently carried out, and conditions existed in most shippens which seriously endangered the purity of the milk immediately it left the cow.

I am, Gentlemen,

Your obedient Servant,

EDWARD SERGEANT,

County Medical Officer of Health.

Preston, October 24th, 1907.

THE COUNTY.

Area and Population.—The area of the Administrative County continues exactly the same as at the end of 1905, and is represented by 1,068,620 acres.

On the 1st of February, the County Council made an Order transferring two small areas which formed part of the ancient township of Worsley, but had ceased to be included in any local government area, to the urban district of Swinton and Pendlebury. The area involved comprises 70 acres, but has no residents. The Order, which was confirmed by the Local Government Board on the 25th January, 1907, comes into operation on the 31st March, 1907, and therefore does not affect this report.

The population, according to the estimates given by the Medical Officers of Health of the districts under report, to the middle of 1906, corresponded to 1,743,647, and on this basis the various rates are calculated. Since the census of 1901, when the population was enumerated at 1,827,436, there has been a decrease amounting to 229,381, due to the extension of County Boroughs and the creation of two new County Boroughs. As in previous years the estimated population of the County is exclusive of over 21,000 residents in the public institutions situated within its area but used for the reception of persons from outside districts. Tables I. and III. appended (page 270, *et seq.*) give the acreage and population of each County district. From the whole of the districts—131 in number—reports have been received and the summaries prepared of them are given on pages 1—263.

Particulars as to the area, population, and persons to an acre of the districts under review are given in the following Table :—

	Area in Acres (per Census Returns).	Population Estimated by Medical Officers of Health, 1906.	Persons per Acre.	Acres per Person.
Municipal Boroughs ...	78,000	547,442	7·01	0·14
Urban Districts	273,767	969,552	3·54	0·28
Rural Districts	716,853	226,653	0·31	3·16
Administrative County.	1,068,620	1,743,647	1·63	0·61

Births registered in the whole of the Administrative County numbered 43,584—in the urban districts 38,094 and in the rural districts 5,490—and corresponded to a decrease of 885 as compared with 1905.

The sex of the children born is given below :—

	Males.	Females.	Total.
Urban Districts	19,345	18,749	38,094
Rural Districts	2,868	2,622	5,490
Administrative County ...	22,213	21,371	43,584

The male births were again more numerous than the female births to the extent of 1·93 per cent., while in the preceding year the excess corresponded to a percentage of 2·79. In the whole County the births of males were to those of

females as 1,039 is to 1,000, in the urban districts 1,031 to 1,000, and in the rural districts 1,093 to 1,000.

Particulars are given of 740 illegitimate births which took place in 71 districts. In 1905, there were 589 such births reported as having occurred in 50 districts, and 652 in 47 districts in 1904. The percentage of illegitimate deaths under the age of twelve months to births was 27·9 for the year under report, 23·4 in 1905, and 26·3 in 1904. In the entire County, the percentage of deaths of children under the age of twelve months to total births corresponded to 13·9 or less than one-half the mortality of illegitimate children. The deaths of illegitimates were most marked in Ashton-in-Makerfield 27 births 9 deaths, Barrowford 4 births 4 deaths, Brierfield 14 births 5 deaths, Leigh (B.) 22 births 12 deaths, Levenshulme 11 births 4 deaths, Newton-in-Makerfield 17 births 7 deaths, Skelmersdale 5 births 4 deaths, Standish-with-Langtree 7 births 6 deaths, Stretford 27 births 10 deaths, Waterloo-with-Seaforth 15 births 8 deaths, Worsley 6 births 3 deaths, Bury (R.) 4 births 4 deaths, and Preston (R.) 8 births 8 deaths.

The birth-rate for the County equal to 24·99 per 1,000 of the population—urban 25·11 and rural 24·22—is the lowest so far recorded, and as compared with the previous year shows a reduction of 0·07 per 1,000, while in urban districts there was a decrease of 0·11 and in rural districts an increase of 0·23. Compared with the average of the ten years 1896-1905, the diminution of the County rate equalled 1·96, urban 2·04, and rural 1·38.

The County rate is 2·1 per 1,000 below the declining rate for England and Wales. The Registrar General reports that "the birth-rate in England and Wales for 1906 was 27·0 per 1,000 of the population, which is 0·2 per 1,000 below the rate in 1905, and lower than the rate in any other year on record. Compared with the average of the ten years 1896-1905, the birth-rate in 1906 shows a decrease of 1·7 per 1,000."

The Table below gives the County birth-rates and those of England and Wales during the years 1896-1906 :—

	Rate per 1,000 of the Population.										
	1906.	1905.	1904.	1903.	1902.	1901.	1900.	1899.	1898.	1897.	1896.
Administrative County	24'99	25'06	25'56	26'77	26'85	26'57	26'80	27'09	27'62	28'45	28'73
Urban Districts.	25'11	25'22	25'66	27'04	26'95	26'78	26'96	27'31	27'89	28'65	29'11
Rural Districts..	24'22	23'99	24'90	24'96	26'14	25'13	25'72	25'53	25'80	27'29	26'62
England and Wales.....	27'0	27'2	27'9	28'4	28'6	28'5	28'5	29'3	29'4	29'7	29'7

The birth-rate for each of the County districts is given in Tables I. and III., page 270, *et seq.*, and with few exceptions, there will be observed, as remarked last year, evidence of a continuous falling in the number of births. In accordance with experience of previous years, in residential districts the birth-rates are low. for instance, Lytham 15·8, Heaton Norris 15·7, St. Annes-on-the-Sea 15·6, Morecambe (B.) 15·0, Grange-over-Sands 12·0, and Childwall 9·0 : while in districts occupied by cotton operatives or by persons engaged in coal mining, where the ratio of young married couples is comparatively high, the birth-rates, although declining, still maintain a high average. for instance, Upholland 37·2, Haydock 37·1, Ince-in-Makerfield 35·1, Aspull 34·8, Skelmersdale 34·4, Gorton 33·8, Standish-with-Langtree 33·2, Abram 33·1, Irlam 33·1, and Hindley 32·0.

The opinion expressed in my last year's report as to the significance of the birth-rate on infant mortality, and the proportion of surviving infants, receives support from the Registrar General who, in his 68th report states that counties where the birth-rates and the child mortality rates are exceptionally low, compare not unfavourably in respect of the upkeep of population at five years of age with those counties in which the birth-rate is moderately high and the child mortality excessive. In

localities that suffer from a heavy mortality among young children, the survivors at five years of age are not likely to be as strong on the average as those in more healthy districts. Several of the local Medical Officers express similar views, and believe that the custom of marrying at a more mature age than formerly results in fewer children being born, but these grow up strong and healthy, and are less likely to fall victims to wasting diseases or diarrhoea so common in childhood. Some of the consequences of the decreasing birth-rate in this country are, according to the Registrar General, (68th Annual Report), modified by a decreasing death-rate. "Still the fact is significant, that if comparison is made among European countries, it is found that in the years 1880-2 that there were no fewer than six States in which the fertility of wives was less than that recorded in England and Wales, whereas 20 years later (1900-2), the rate of fertility among married women in England and Wales was, with the exception of France, lower than that recorded in any other European country. It is also noteworthy that the rate of fertility among wives in this country had, in the year 1905, fallen below the level prevailing in New South Wales: and it may be remarked that the decline in the birth-rate in that Colony has been viewed with so much apprehension that a Royal Commission was recently appointed, which, after diligent and full enquiry, has reported on the causes that have contributed thereto, and the effects of the restriction of child-bearing on the well-being of the Commonwealth." He further states that there are no means of ascertaining the fertility of women at the several ages of the child-bearing period, but "there are, however, sufficient grounds for stating that during the past 35 years approximately about 17 per cent. of the decline in the birth-rate (based on the proportion of births to the female population aged 15-45 years) is due to the decrease in the proportion of married women in the female population of conceptive ages, and about 10 per cent. is due to the decrease of illegitimacy."

Deaths registered in the Administrative County during the year under report, numbered 25,494, or 73 more than last year—when Southport (B.) and two townships (Orrell and Fazakerley) in Sefton (R.) formed part of the County area. The excess of births over deaths amounted to 18,090 against 19,048 in 1905, 18,876 in 1904, 21,414 in 1903, 21,366 in 1902, and 18,816 in 1901. Of the total deaths, 12,966 were males—11,382 in urban and 1,584 in rural districts: and 12,528 females—11,090 in urban and 1,438 in rural districts. The ages at the time of death were as below :—

Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	65 and upwards.	Total.
6,084	2,806	1,106	1,126	8,621	5,751	25,494

The following Table gives a statement of County birth and death rates compared with England and Wales :—

	Birth-rate per 1,000 of the Population	Per 1,000 of the Population.		Death rate from the Seven principal Epi- demic Diseases.	Rate of Infantile Mor- tality measured by the proportion of deaths of Infants under 1 year to 1,000 Births
		Urban Death- rate.	Rural Death- rate.		
England and Wales	27.0	*15.2	†15.1	1.73	133
		15.4			
76 large English Towns...	27.9	15.9	...	2.24	145
Administrative County of Lancaster { Urban...	25.11	14.81	...	2.08	143
{ Rural ...	24.22	...	13.33	1.23	109
Urban and Rural Dis- tricts combined	24.99	14.62		1.97	139

* Refers to the 76 great towns and 142 smaller towns.

† Refers to the remainder of the country, including the small urban districts and the rural districts.

The proportion of male deaths in the County was 1·71 per cent. higher than that of females. In the urban districts the excess corresponded to 1·29 per cent., and in the rural districts 4·83 per cent. In the whole County the deaths of males were to those of females as 1,034 is to 1,000, in the urban districts as 1,026 is to 1,000, and in the rural districts as 1,101 is to 1,000. In 1905 the total male deaths exceeded those of females by 0·21 per cent., in the urban districts the female deaths exceeded those of males by 0·13 per cent., while in the rural districts the percentage of male deaths was 2·69 higher than that of females.

The death-rate for the County in 1906 was 14·62 per 1,000 of the population, against a rate of 14·32 last year, 15·54 in 1904, 15·22 in 1903, and 15·26 in 1902. The rate for the year under review is, with the exception of that of 1905, the lowest on record. As compared with 1905 the County death-rate shows an increase of 0·30 per 1,000; the rates for the urban and rural districts being 0·29 and 0·34 respectively higher. Comparison with the mean death-rate of the preceding decade, 1896-1905, shows that the rate for 1906 was more favourable to the extent of 1·66 per 1,000 in the County, 1·73 in the urban districts, and 1·22 in the rural districts. The rate for the County in 1905 was 0·8 below the rate for England and Wales, and the urban and rural rates also bear favourable comparison. The Table below shows the County death-rates and also those for England and Wales from 1896-1906 :—

	Rate per 1,000 of the Population.										
	1906.	1905.	1904.	1903.	1902.	1901.	1900.	1899.	1898.	1897.	1896.
Administrative County	14·62	14·32	15·54	15·22	15·26	16·28	17·19	17·60	16·58	17·45	17·38
Urban Districts	14·81	14·52	15·78	15·44	15·43	16·58	17·46	17·88	16·80	17·82	17·76
Rural Districts..	13·33	12·99	13·81	13·69	14·08	14·21	15·26	15·65	15·09	15·55	15·25
England and Wales.....	15·4	15·2	16·2	15·4	16·3	16·9	18·3	18·3	17·6	17·4	17·1

The death-rates of the County districts varied from 19·9 in Ince-in-Makerfield, 19·3 Bispham-with-Norbreck, 18·7 Widnes (B.), 18·4 Swinton and Pendlebury, 18·1 Chadderton, 18·0 Heywood (B.), and 18·0 Whitefield, to 9·8 Heaton Norris, 9·4 Fulwood, 9·0 Childwall, 8·3 Little Crosby, 8·3 Preesall-with-Hackinsall, 8·2 Great Crosby, 8·2 Little Woolton, and 5·4 Allerton.

As in previous years the deaths taken cognisance of by Medical Officers of Health refer to the net deaths actually belonging to each district, and, in accordance with the instructions of the Local Government Board, all deaths occurring in public institutions of persons not belonging to the district are excluded. This arrangement allows the exclusion of a large number of deaths from the local statistics which in many cases are allocated to the areas—as a rule County Boroughs—to which they belong: for instance, 208 deaths which took place at the Fulwood Workhouse, Barracks, &c., are excluded, as also the Workhouse deaths from the urban districts of Ormskirk and Wardle—68 and 240 respectively—and the 165 deaths which occurred in Whittingham Asylum and Ribchester Workhouse (Preston R.), 323 in Rainhill Asylum and Workhouse (Whiston R.), 203 in Winwick Asylum (Warrington R.), and 192 in the County Asylum and other public institutions (Lancaster R.)

It may also be again pointed out that the effect of including in the statistics of local authorities deaths of non-residents, *unless occurring in public institutions*, has considerably increased the death-rates of certain much frequented health resorts, for instance, in Lytham, Morecambe (B.), St. Annes-on-the-Sea they are raised 0·7, 2·68, and 2·0 per 1,000 respectively by the deaths of visitors.

Infantile Mortality. — The County rate of deaths under one year to 1,000 births was 139 against 132 last year,

157 in 1904, 140 in 1903, 139 in 1902, 161 in 1901, and 155 the average of the past 10 years, 1896-1905. The rate in the urban districts averaged 143 and in the rural districts 109, as compared with 137 urban and 101 rural in the previous year. The infant rate for England and Wales was 133—an increase of 5 over last year—in the 76 great towns 145, and in 142 smaller towns 138. The Table below gives the County infant rates and those of England and Wales for the years 1896-1906 :—

	Deaths of Children under 1 Year to 1,000 Births.										
	1906.	1905.	1904.	1903.	1902.	1901.	1900.	1899.	1898.	1897.	1896.
Administrative County	139	132	157	140	139	161	162	175	168	169	155
Urban Districts.	143	137	162	143	143	167	167	181	173	174	161
Rural Districts..	109	101	124	114	116	118	123	134	130	138	121
England and Wales.....	133	128	146	132	133	151	154	163	161	156	148

In the following districts high rates were attained, viz. :—

Longridge	219	Upholland	185
Little Lever	216	Whitefield	183
Skelmersdale.. ..	205	Barrowford	181
Swinton & Pendlebury	199	Ince-in-Makerfield ..	181
Widnes (B.)	195	Much Woolton	180
Tyldesley-with-		Oswaldtwistle	180
Shakerley	194	Padiham	180
Hurst	193	Colne (B.)	175
Farnworth	188		

Low rates were recorded in—

Rainford	61	Grange-over-Sands ..	41
Thornton	59	Allerton	37
Garstang (R.)	58	Fulwood	28
Sefton (R.)	55	Preesall-with-Haekinsall	21

The following Table shows the rate for 1906 compared with the three preceding quinquennia :—

MORTALITY.—Deaths during 1906 from stated Causes in Weeks and Months under One Year of Age.

CAUSE.				Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under One Year.
.. .. .				1085	283	243	195	1806	578	511	461	427	379	328	345	295	258	286	236	5943
.. .. .				59	6	3	2	70	13	9	8	11	10	3	4	2	3	2	6	141
..
.. .. .				..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	2
.. .. .				..	..	..	1	1	1	..	1	2	5	14	17	25	19	34	26	145
r .. .. .				..	..	..	..	..	..	..	..	..	..	1	..	..	..	3	..	4
Croup .. ..				..	..	..	..	..	..	..	..	..	..	2	1	3	..	1	..	7
ough .. ..				..	..	1	1	2	11	7	6	13	14	9	8	10	8	16	8	115
all forms				3	12	18	23	56	92	163	114	111	122	90	85	62	61	58	37	1051
uco-enteritis, astro-enteritis ..				3	5	6	7	21	40	50	43	30	26	18	19	20	15	16	17	315
astro-intestinal				3	4	5	5	17	17	20	15	16	15	11	12	6	5	3	4	141
Birth				619	88	50	42	799	37	23	9	1	1	..	4	..	2	..	..	879
Defects				133	45	18	15	211	30	12	4	5	1	1	5	..	6	..	2	277
rth				13	..	1	1	15	..	..	..	..	..	..	..	..	..	..	..	15
east-milk, Starvation...				2	3	3	2	10	3	2	3	1	..	1	..	..	..	..	..	20
bility, Marasmus				146	57	76	41	320	131	90	60	52	24	29	23	11	9	9	2	760
s Meningitis ..				1	..	..	1	2	1	4	5	10	7	8	12	9	3	8	8	80
s Peritonitis esenterica ..				..	..	1	..	1	5	5	12	14	13	8	8	6	5	2	5	84
rculous Diseases.				4	..	1	..	5	6	8	12	17	10	11	8	7	1	10	8	106
.. .. .				..	..	1	1	2	4	3	1	..	1	..	..	..	2	..	..	13
.. .. .				1	2	1	2	6	..	1	2	3	1	..	1	1	2	..	1	21
.. .. .				..	..	..	..	..	..	1	1	1	3	2	3	2	1	..	1	15
not Tuberculous)				4	2	1	1	8	1	5	6	9	9	11	12	12	12	16	4	111
.. .. .				83	26	23	15	117	17	34	18	33	23	13	11	15	8	16	16	414
.. .. .				5	9	6	10	30	51	54	49	41	13	40	19	37	35	26	36	494
.. .. .				..	1	..	..	1	1	..	..	1	1	2	..	1	3	1	1	12
.. .. .				5	1	2	5	16	10	30	35	40	18	39	44	13	38	14	46	163
overlying ..				11	..	..	1	12	9	1	10	3	..	..	1	..	..	..	..	39
-s				108	31	32	23	191	55	31	33	28	22	18	23	27	23	21	20	501
				1141	289	216	197	1876	591	553	469	438	389	331	319	297	261	288	212	6081

form excellent breeding ground for pathogenic organisms which readily attack the sensitive infant and add their quota to the death roll. Diarrhœa, with such diseases as gastritis, enteritis, &c., now classed under this head, therefore swell the infant death-rate in the filth-ridden districts indicated, and evidence of this is afforded by the large number of diarrhœal deaths given in Table A, namely, 1,507, equal to 24·7 per cent. of the total County deaths under one year; and further support is given by the high proportion of deaths—760—registered under the heading atrophy, debility, and marasmus.

It will be seen that the fatalities were most numerous in the first week of life viz., 1,144 or 18·8 per cent. of the total mortality under the age of twelve months: in the next three weeks there was a loss of 732 lives, equal to 12·0 per cent., while during the first three months half the infant mortality took place, and afterwards an almost continuous diminution in the monthly mortality was observable. Altogether the number of deaths under 12 months amounted to 6,084, equal to a rate of 3·48 per 1,000 of the population or 0·16 in excess of the rate recorded last year. The causes of death at various ages under 12 months are given in Table A, appended, and the Table below gives the proportion of deaths for periods of three months in the first year of life:—

	Rate of Deaths under One Year to 1,000 Births.				
	0—3 Months.	3—6 Months.	6—9 Months.	9—12 Months.	Total.
Administrative County ...	69	29	22	18	139
Urban Districts	70	30	23	19	143
Rural Districts	59	22	16	10	109

In several districts Authorities have been taking action either by co-operation with local Health Societies or by the appointment of Lady Inspectors to stem the loss of infant life, and information relating to the feeding and bringing up of infants has been afforded as soon after a birth takes place as possible. It is further gratifying to note that additional assistance will soon be extended to local Authorities by the legislation which is now in hand for making notification of births within 36 hours compulsory; in this way, a long needed want will be satisfied, and facilities provided for doing valuable work.

In many reports references are made regarding the preventable mortality of infants, and all agree as to the necessity of local authorities paying more attention to this subject. The views expressed are practically covered by the important Resolutions given below which were passed at the National Conference on Infantile Mortality, held in London under the presidency of the Rt. Hon. John Burns, President of the Local Government Board, in June, 1906 :—

1. That the Education Department be urged to add instruction in Elementary Hygiene with reference to the dietary and rearing of infants to their present scheme for systematically training girls in the senior classes in the practice and principles of personal hygiene and the elements of dietary.

2. That, in the opinion of this Conference, immediate legislation is required enabling Sanitary Authorities to establish or support depôts for the supply of pure, or modified, or sterilized milk, and to defray any cost out of the monies available for public health purposes.

3. That, in view of the information submitted, the Conference is of opinion that all still-births should be notified within 48 hours to the Medical Officer of Health

of the district in which they occur, and that no burial should take place without a medical certificate.

4. That notification of all births be given within 48 hours to the Medical Officer of Health of the district in which they occur.

5. That, in the opinion of this Conference, the question of the insurance of infant lives under 12 months is one demanding serious consideration, and, with a view to receiving reliable information, the Government should be asked to appoint a departmental committee of enquiry on the whole question.

6. (a) That the period of one month's abstention from factory work away from home now imposed on mothers be extended to at least three months, and that, on their return to work, evidence must be produced satisfactory to the Local Authority that proper provision has been made for the care of the child.

(b) That no employer of labour shall permit a woman advanced in pregnancy to engage in factory labour unless her ability therefor has been certified to the satisfaction of the Local Authority.

7. (a) That, having regard to the ascertained fact that in centres of industries where women are largely employed away from their homes an excessive number of deaths of infants takes place, and that this is contributed to by the improper conditions existing at the houses in which infants are placed out to nurse, it is necessary that the persons by whom, and the places into which infants are received, should be under supervision by the Local Sanitary Authority.

(b) That the Infant Life Protection Act be amended

to remedy abuses which are not at present provided against.

8. That all preparations offered or sold as food for infants should be certified by a Government Analyst as non-injurious, and that each packet should contain its analysis.

9. That the Dairies, Cowsheds, and Milkshops Order is defective, and that any amendment should extend the definition of disease as applied to animals, and should make the provision of Regulations by Local Authorities compulsory. That the scope of the Regulations should be extended to cover dirty milk, and should enable Local Authorities to prohibit the sale of any milk which fails to comply with the conditions of purity agreed upon.

10. That, in the opinion of this Conference, the appointment of qualified women, specially trained in hygiene of infancy is necessary as an adjunct of public health work.

11. That, in the opinion of this Conference, the Midwives Act, 1902, should be extended to Scotland and Ireland.

The Seven Principal Epidemic Diseases, viz., small-pox, measles, scarlet fever, diphtheria and membranous croup, whooping cough, fever (including enteric, typhus, and continued fever), and diarrhoea, contributed 3,443 deaths or 13·5 per cent. of total deaths from all causes. In 1905, there were 2,445 deaths, equal to 9·6 per cent. of all deaths; in 1904 there were 3,650 deaths, or a percentage of 12·1; in 1903 the percentage was 10·6; 1902, 9·9; 1901, 12·7; 1900, 12·6; and in 1899, 13·5. In 1906 there were 998 more deaths ascribed to these diseases than in the exceptionally favourable year 1905, but it may be pointed out that, owing to an alteration in the method of compiling the Local Government Board

Tables, which came into operation at the commencement of the year, the deaths of children *under one year* from enteritis, muco-enteritis, gastritis, and gastro-intestinal catarrh, are for the first time included under the head of diarrhœa, and these diseases alone contributed 456 deaths, equal to 45·6 per cent. of the excess above mentioned. The zymotic or as now called the "epidemic" death-rate was equivalent to 1·97 per 1,000, urban 2·08 and rural 1·23. If deaths from enteritis, &c., were excluded as in previous years, the County rate would be 1·71 or 0·34 higher than in 1905; as compared with the rate for England and Wales (1·73), the County rate shows an increase equal to 0·24 per 1,000.

The following Table gives the epidemic death-rates for the Administrative County during 1906 compared with the 10 years 1896-1905:—

YEAR.	ANNUAL DEATH-RATE PER 1,000.							
	Seven Principal Epidemic Diseases	Small-pox.	Measles.	Scarlet Fever.	Diphtheria and Membranous Croup.	Whooping Cough.	"Fever" Enteric, Typhus, & Continued Fever).	Diarrhœa.
1896	1·94	0·005	0·49	0·24	0·09	0·36	0·23	0·48
1897	2·14	nil.	0·66	0·15	0·08	0·27	0·19	0·77
1898	1·89	0·0005	0·25	0·10	0·07	0·19	0·26	1·00
1899	2·37	0·0005	0·44	0·18	*0·18	0·26	0·24	1·05
1900	2·07	0·0015	0·43	0·18	0·26	0·37	0·20	0·60
1901	2·07	nil.	0·18	0·18	0·34	0·20	0·20	0·95
1902	1·51	0·0119	0·35	0·20	0·30	0·19	0·16	0·28
1903	1·62	0·0366	0·37	0·18	0·19	0·26	0·15	0·40
1904	1·93	0·0116	0·43	0·18	0·15	0·35	0·12	0·66
1905	1·37	0·0033	0·26	0·13	0·15	0·15	0·14	0·52
Average 10 years.	1·89	0·0070	0·38	0·17	0·18	0·26	0·18	0·67
1906	1·97	nil.	0·36	0·11	0·16	0·13	0·14	†1·05

* Membranous Croup included for the first time. Average since 1899, 0·22.

† Deaths under one year from "Enteritis, &c.," included for first time.

Tables I. and III. appended, contain the district epidemic death-rates, and below are tabulated the County rates for each of the seven principal epidemic diseases in 1906 :—

	ANNUAL DEATH-RATE PER 1,000.							
	Seven Principal Epidemic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria and Membranous Croup.	Whooping Cough.	"Fever" (Enteric, Typhus, & Continued Fever).	Diarrhoea.
Administrative County of Lancaster	1.97	nil.	0.36	0.11	0.16	0.13	0.14	1.05
Urban Districts.....	2.08	nil.	0.39	0.11	0.16	0.13	0.15	1.12
Rural Districts	1.23	nil.	0.15	0.10	0.15	0.10	0.11	0.60
England and Wales,.	1.73	0.00	0.27	0.10	0.17	0.23	0.09	0.87

In the following districts the epidemic rates were very high, viz., Ince-in-Makerfield 4.63, Golborne 4.42, Hindley 3.82, Colne (B.) 3.75, Swinton and Pendlebury 3.75, Gorton 3.72, Tyldesley-with-Shakerley 3.63, Fleetwood 3.46, Widnes (B.) 3.46, Leigh (B.) 3.45, Ashton-in-Makerfield 3.30, Haydock 3.24, Litherland 3.21, Prescott 3.18, Atherton 3.15, Orrell 3.15, Little Lever 3.14, Oswaldtwistle 3.12, and Farnworth 3.07 ; while low rates prevailed in Lytham 0.54, Great Crosby 0.53, Fulwood 0.52, St. Annes-on-the-Sea 0.52, Norden 0.50, Ulverston (R.) 0.33, Carnforth 0.31, Heysham 0.25, and nil in Childwall, Grange-over-Sands, Little Crosby, Little Woolton, and Poulton-le-Fylde.

Small-pox for the first year since 1901 did not give rise to a single fatality, although 233 cases occurred as compared with 255 cases (6 deaths) in the previous year, and 422 cases

(22 deaths) in 1904. The following Table gives the cases and deaths since 1890 :—

Year.	Cases.	Deaths.	Year.	Cases.	Deaths.
1890.....	1	None.	1899.....	16	1
1891.....	2	„	1900.....	59	3
1892.....	612	70	1901.....	6	None.
1893.....	1038	84	1902.....	436	22
1894.....	259	25	1903.....	1156	68
1895.....	100	19	1904.....	422	22
1896.....	83	10	1905.....	255	6
1897.....	3	None.	1906.....	233	None.
1898.....	6	1			

The monthly incidence of the disease is given below ; the majority of the cases broke out in the second quarter, followed by the first, third, and fourth quarters :—

1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Jan. 12	—	April 35	—	July 28	—	Oct. 4	—
Feb. 22	—	May 34	—	Aug. 16	—	Nov. 10	—
Mar. 24	—	June 34	—	Sept. 5	—	Dec. 9	—
58	—	103	—	49	—	23	—

The districts in which the disease appeared—10 in number—were as follow :—Ashton-under-Lyne (B.) 119, Audenshaw 3, Chadderton 28, Failsworth 1, Heywood (B.) 1, Hurst 31, Middleton (B.) 13, Mossley (B.) 1, Royton 13, and Limehurst (R.) 23. Last year 30 districts were attacked, 61 in 1904, 100 in 1903, and 54 in 1902. Practically the whole of the cases occurred in or around Ashton-under-Lyne (B.), the Oldham County Borough acting as a distributor to the contiguous County districts. The disease was almost without exception of a mild type, and the Medical Officer of Health

of Middleton (B.) remarks that, owing to the mildness of the type, some of the small-pox cases were mistaken for chicken-pox, and consequently did not come under the notice of a medical practitioner. Several children said to have suffered from chicken-pox showed marked signs of "pitting."

Measles was credited with 629 deaths as compared with 464 in 1905, 827 in 1904, 695 in 1903, 653 in 1902, 332 in 1901, and 857 in 1900. The County deaths from this cause corresponded to a rate equal to 0·36 per 1,000 of the population, in the urban districts 0·39, and 0·15 in the rural districts. The rate for the whole of England and Wales was 0·27, and for the 76 great English towns 0·40. The rate for the County was 0·10 above last year's rate, but 0·02 below the mean of the 10 years 1896-1905. The monthly returns respecting 606 deaths show that the number of fatalities increased almost continuously from the first month to the end of the year :—

1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.	
January ...	14	April	34	July.....	54	October ...	50
February ...	21	May	40	August ...	47	November..	88
March ...	43	June	52	September	40	December..	123
78		126		141		261	

The age at death in 145 instances or 23 per cent. of total deaths was under one year, in 450 or 71·5 per cent. between 1 and 5 years, and in 34 or 5·4 per cent. 5 years and upwards. The distribution was slightly more extensive than in the previous year; in 53 districts not a single death was recorded, against 55 in the previous year. The highest rates were attained in Tyldesley-with-Shakerley 1·75, Fleetwood 1·55, Brierfield 1·53, Hindley 1·36, Colne (B.) 1·30, Preesall-with-Hackinsall 1·29, and Droylsden 1·08. Beyond school closure—

which, unfortunately, is not often put in force until measles has spread extensively—little is done to control this periodical visitant. In only 5 districts is notification of measles compulsory, so that local authorities in the remaining districts may be entirely ignorant of its appearance until the fact becomes known through the death returns, and enquiry shows that the district has become seriously affected. Dr. Hosegood (Swinton and Pendlebury) remarks that “it is not altogether easy to determine the exact cause of these periodical invasions of this most fatal disease of childhood, but it is a fact that parents, and those responsible for the care of children, appear to be under the impression—despite repeated warnings to the contrary—that not even the most ordinary steps need be taken to prevent its spread.” Although views differ as to the value of school closure in regard to limiting the distribution of measles, when once started there is no difference of opinion as to the important part schools play in the propagation of the disease, and the unsatisfactory results of school closure sometimes experienced may possibly be due to the long delay in its adoption.

Scarlet Fever had a reduced prevalence, and fewer deaths were occasioned than in any year since 1898. Altogether 6,373 cases were notified and 192 deaths, as compared with 7,407 cases and 239 deaths in the previous year, 9,803 cases and 354 deaths in 1904, 10,182 cases and 350 deaths in 1903, 9,153 cases and 374 deaths in 1902, and 8,767 cases and 334 deaths in 1901. The death-rate 0·11—urban 0·11 and rural 0·10—is the lowest recorded in the County, except 1898, when it was 0·16. For England and Wales the rate was 0·10, and 76 great towns 0·12. For the 10 years 1896-1905, the County rate averaged 0·17. The following Table gives the monthly incidence of the disease in the districts making returns. The prevalence was most marked during the last three months of the year, and in July and August the fewest cases were recorded.

1st Quarter.			2nd Quarter.			3rd Quarter.			4th Quarter.		
Cases. Deaths.			Cases. Deaths.			Cases. Deaths.			Cases. Deaths.		
Jan.	617	19	April	476	16	July	439	12	Oct.	584	14
Feb.	530	14	May	525	16	Aug.	375	16	Nov.	677	17
Mar.	484	15	June	451	16	Sept.	477	5	Dec.	507	13
1631 48			1452 48			1291 33			1768 44		

The percentage of deaths to cases notified was 3·0—the lowest hitherto attained—against 3·2 last year, 3·6 in 1904, 3·4 in 1903, 4·0 in 1902, 3·8 in 1901, 3·5 in 1900, and an average of 3·9 for the decade 1896-1905. Of the total scarlet fever deaths, 4 or 2 per cent. were amongst children under the age of one year, 113 or 58·8 per cent. one year and under 5 years, and 75 or 39·0 per cent. five years and upwards. The disease had the greatest prevalence in the following districts:—

	Cases.	Deaths.	Removals to Hospital.
Ashton-in-Makerfield	115	2	55
Chadderton	122	8	16
Colne (B.)	191	8	1
Crompton	132	6	17
Dalton-in-Furness	1 8	4	49
Denton	134	2	4
Droylsden	143	8	2
Ezeles (B.)	208	5	39
Gorton	185	3	8
Heywood (B.)	186	10	—
Horwich	173	6	—
Leigh (B.)	335	9	175
Nelson (B.)	145	2	—
Royton	146	5	16
Stretford	140	2	77
Whiston (R.).. ..	143	6	119

Of the total cases of scarlet fever 1,794 or 28·14 per cent. received hospital isolation, against a percentage of 31·71 last year, 28·48 in 1904, 28·6 in 1903, 25·92 in 1902, and 23·54 in 1901. The percentage of removals was highest in Lytham 97, Ormskirk 93, Huyton-with-Roby 88, West Lancashire (R.) 87, Thornton 85, St. Annes-on-the-Sea 84, Whiston (R.) 83, Horwich 82, Morecambe (B.) and Fylde (R.) each 81, Chorley (B.) 79, Abram and Lancaster (B.) each 78, Ulverston 75, Lunesdale (R.) 72, Widnes (B.) and Withnell each 70, Kirkham 69, Lancaster (R.) 64, Farnworth 57, Padiham and Burnley (R.) each 56, Stretford and Tyldesley each 55.

Particulars are given in the summarised reports as to the prevalence of the disease in various districts, and the means taken to stay its progress. The most frequent source of trouble arose from children being allowed by their parents to attend school in a state of desquamation. The following instances may be quoted :—Colne (B.): one child discovered attending school while suffering from scarlet fever. On a visit being paid to the home two other children were found to be infected, and at the same time the mother was following her work at the mill. Hindley: two children in the “ peeling ” stage were found attending school; the Council admonished the parents. From Huyton-with-Roby, Leigh (B.), Levenshulme, Middleton (B.), Lunesdale (R.), &c., similar cases are reported. Litherland: At one of the elementary schools a teacher was found performing her ordinary duties whilst suffering from this disease. Two of her sisters, one a teacher also, were at home in bed similarly affected. On the school being medically inspected, two children were discovered desquamating, and in a state capable of spreading the infection to a serious extent. The school was closed and thorough disinfection carried out. Lytham: an outbreak of scarlet fever during the first half of the year was very largely due to the unrecognised case of a child who was attending school whilst peeling freely. He had obviously infected a number of his schoolfellows about

whom notifications had already been received, and was the direct or indirect cause of the onset of the symptoms in others during the ensuing weeks.

Such occurrences leading to the causation of a vast amount of sickness among young children and a grave interference with the educational system of the County are avoidable to a large extent by the adoption of a proper system of school inspection carried out at frequent intervals. Instances of infection due to other causes are given in the district reports. In Trawden, "some convalescent children, with skin peeling off them, and in a highly infectious state were allowed to play in the streets with healthy children, thus greatly increasing the epidemic." Reference is also made by Dr. Skeen, Medical Officer of Health, to "the habit of sending school children with notes to the houses of absent scholars to enquire as to the cause of absence." In many cases the absence is due to infectious disease, and the messenger runs the risk of infection. Horwich: the Medical Officer of Health states that the chief factors in the spread of scarlet fever were (*a*) frequent visiting of residents to other districts where the disease was epidemic, (*b*) its non-recognition in the early stage, and (*c*) in some instances the concealment of cases.

Whooping Cough gave rise to 231 deaths (urban 207 and rural 24) as compared with 273 deaths last year, 676 in 1904, 493 in 1903, 351 in 1902, and 378 in 1901. The County rate was the lowest on record (see Table, page xxv.), namely 0·13 per 1,000 of the population, urban 0·13 and rural 0·10. Last year the rate was 0·15, urban 0·15 and rural 0·12. The rate for England and Wales was 0·23, and 0·28 in 76 of the great English towns. Returns were supplied by County districts with respect to 209 deaths of which 56 occurred in the first quarter, 72 in the second, 44 in the third, and 37 in the fourth. Under the age of one year, 115 or 49·7 per cent. of the deaths took place, 105 or 45·4 per cent. between 1 and 5 years, and 11

or 4·7 per cent. from 5 years and upwards. The fatalities were most numerous in Accrington (B.) 12, Ashton-in-Makerfield 9, Farnworth 7, Gorton 16, Newton-in-Makerfield 7, Swinton and Pendlebury 9, Waterloo-with-Seaforth 7, Widnes (B.) 20, and Whiston (R.) 8. Schools were closed on account of this disease in five districts.

Diphtheria and Membranous Croup, although more prevalent, had a less case mortality than in the previous year. Information was received concerning 290 deaths and 1,603 cases, against 280 deaths and 1,486 cases notified in 1905 : in 1904, 290 deaths and 1,644 cases ; in 1903, 369 deaths and 2,134 cases ; in 1902, 563 deaths and 2,833 cases ; and in 1901, 636 deaths and 3,242 cases. The County rate was equal to 0·16—urban 0·16 and rural 0·15—as compared with 0·15 for the County in 1905, and an average of 0·22 since 1899. In England and Wales and in the great towns of England, the diphtheria rate corresponded to 0·17 and 0·19 per 1,000 respectively. According to the monthly returns the disease caused 524 cases in the fourth quarter, 440 in the first, 309 in the third, and 293 in the second. Of the deaths 7 or 2·4 per cent. were under one year, 160 or 55·2 per cent. from 1 to 5 years, and 123 or 42·4 per cent. 5 years and upwards. In 39 districts there were no deaths from either diphtheria or membranous croup. The following districts showed the greatest prevalence :—

	Cases.	Deaths.	Removals to Hospital.
Accrington (B.)	52	10	—
Ashton-in-Makerfield	100	9	29
Dalton-in-Furness	34	9	17
Horwich	49	6	10
Lathom and Burscough	55	1	1
Nelson (B.)	37	13	—
Stretford	55	10	22
Turton	52	8	—
Chorley (R.)	44	6	7
Whiston (R.).....	41	7	16

In an increasing number of districts antitoxin is supplied by the Authorities to medical practitioners free of cost, and its value either as a protective or curative agent is now generally acknowledged. In fact, there is reason to believe that the reduced fatality of diphtheria in the Administrative County has been coincident with the more extended use of antitoxin in the treatment of this disease. Although personal infection plays the most important part in the dissemination of diphtheria, it is possible that certain insanitary conditions may assist in the spread of the disease or account for the endemic form it assumes in many districts. The bacteriological examination of throat swabs taken in suspected cases of diphtheria and throat affections, so frequently occurring among school children, has been of great assistance, and revealed the fact that diphtheria renders school life not always free from danger; it is therefore most important that every care should be exercised to detect as early as possible latent cases of diphtheria, so that precautions may be taken most effectively. In some of the County districts, Medical Officers of Health attributed the originating cause of diphtheria to insanitary conditions, as at Turton, where a house cellar existed, "which was used as a stable and hen house, the place being in a filthy and insanitary condition, the drains choked, and ventilation practically nil." In Walton-le-Dale "the extreme dampness of the soil upon which the houses are built, together with the damp surroundings, are looked upon as the cause of the disease," while Dr. Mercer, Whiston (R.), says, "in almost every case where diphtheria occurred, foul privies existed. . . . the privies are often badly constructed, being too deep, uncovered, or the walls quite pervious so that filth is constantly oozing out and saturating the ground. The consequence is that the inhabitants are continually breathing a foul atmosphere, which, in very many cases, produces a relaxed condition of the throat, in which the diphtheria germ finds a happy hunting ground."

Fever, including typhus fever, enteric (typhoid) fever, and continued fever or pyrexia of uncertain origin, caused 1,262 cases and 258 deaths. For the second year in succession, typhus fever has not contributed a single case: enteric fever gave rise to 1,248 cases and 252 deaths, and continued fever 14 cases 6 deaths. In the previous year, enteric fever was responsible for 1,335 cases and 255 deaths, and continued fever 30 cases 4 deaths. The "fever" death-rate per 1,000 of the population was 0·14 for the County—0·15 in urban and 0·11 in the rural districts, corresponding almost exactly with the rates for 1905, while for the whole of England and Wales the rate was 0·09, and the same for the great English towns. The County average for the 10 years 1896-1905 was 0·18. The case mortality in 1906 was 20·4 per cent., as compared with 18·9 in 1905, 18·6 in 1904 and 1903, 16·9 in 1902, and 17·1 in 1901. The monthly incidence in the districts from which returns are received was as follows, the mortality being highest in the fourth quarter and lowest in the first quarter:—

1st Quarter.			2nd Quarter.			3rd Quarter.			4th Quarter.		
Cases. Deaths.			Cases. Deaths.			Cases. Deaths.			Cases. Deaths.		
Jan.	99	15	April	82	21	July	47	8	Oct.	190	42
Feb.	80	14	May	64	20	Aug.	96	14	Nov.	132	19
Mar.	71	13	June	42	8	Sep.	202	25	Dec.	78	19
	250	42		188	49		345	47		400	80

In 39 districts there were no deaths registered from enteric or continued fever, but in the following districts the disease had the greatest prevalence:—Farnworth 56 cases 15 deaths, Gorton 41 cases 4 deaths, Haydock 34 cases 3 deaths, Hindley 32 cases 3 deaths, Ince-in-Makerfield 53 cases 13 deaths, Leigh (B.) 50 cases 14 deaths, Swinton and Pendlebury 32 cases 8 deaths, Tyldesley-with-Shakerley 32 cases 6 deaths,

and Widnes (B.) 67 cases 11 deaths. These districts, it may be observed, are provided chiefly with privy middens, except perhaps in the case of Swinton and Pendlebury, where privy middens and water closets are equally divided. The majority of these districts have long held an unenviable position in respect of enteric fever, and one cannot too strongly impress on Authorities concerned the importance of substituting for the privy abomination the more cleanly water closet. Until this is done, unnecessary deaths from "filth diseases" will continue to take place, for which the governing bodies ought to be held responsible.

The following references to the subject are taken from the reports of the district Medical Officers of Health :—

Farnworth.—Enteric fever had an increased prevalence : commenting on this, Dr. Kershaw urges further progress in the paving and sewerage of back streets and yards, and the absolute abolition of the privy midden system, the latter being admitted as the chief factor in the cause and perpetuation of enteric fever.

Haydock.—The abolition of the privy midden system is recommended as the first step towards the attainment of public cleanliness, and the Council should see to it. Dr. Dowling, Medical Officer of Health, thinks that "the efforts of the Sanitary Authority should be directed towards the improvement of all privy ashpits in the older houses, At the same time the importance of frequent scavenging cannot be too strongly impressed upon the Council, even when there is no infectious sickness in the neighbourhood, and in the matter of the scavenging of these ashpits, the material ought to be removed directly from the ashpits into the cart, so as to prevent any soil pollution in the passage, and this work should be carried out at night."

Ince-in-Makerfield.—Enteric fever is endemic in this

district, and must cause misgivings as to the sanitary condition of certain parts. Evidence is now being collected as to the danger of the privy midden system in regard to enteric fever, and the Council are urged to take into most serious consideration the possibility of adopting water carriage.

Rawtenstall (B.).—One of the enteric fever cases was due to contaminated water, and in this case it was fortunate that the disease was not communicated to others for the water in question supplied a farm from which milk was sold.

Royton.—As a result of special enquiries made into the cases of enteric fever, it is noteworthy that all were found associated with defective drainage.

Walton-le-Dale.—In November, 5 cases of enteric fever occurred at the Straits, Hoghton Lane. On enquiries being made, it was ascertained that the five families were supplied with milk from a small farm on the other side of the road, where a case of "fever" had been under treatment for some time: this farmhouse is just outside the township boundary.

Waterloo-with-Seaforth.—Enteric fever caused more cases than for some years past, and "as the result of an enquiry it was found that several of the cases were of persons employed on steamships, &c., trading to the Port of Liverpool but residing in this district, who, it was stated, obtained impure water either on shipboard or at the port of embarkation." One case was attributed to the consumption of shellfish.

Westhoughton.—Two of the enteric fever patients ascribed the disease to eating oysters during a visit to the sea-side, and in a third case, the drinking of "pit" water might very possibly have caused the attack.

Diarrhœa.—Under this heading are included Epidemic diarrhœa, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhœa, Dysentery and Dysenteric

diarrhœa, Choleraic diarrhœa, Cholera and Cholera Nostras. In addition, and as regards deaths of children *under one year of age*, under the heading Diarrhœa. in Local Government Board Table IV. (relating to causes and ages at death), are to be included all deaths classified as "Diarrhœal Diseases" on Table V. which relates solely to Infant Mortality. Under the heading of "Enteritis," in Table IV., are now included only deaths *over one year of age* registered as due to Enteritis, Muco-enteritis, Gastro-enteritis, Gastric catarrh, Gastritis, and Gastro-intestinal catarrh, unless from information obtained by enquiry from the certifying practitioner or otherwise, the Medical Officer of Health should have reason for including such deaths under the specific term "Diarrhœa." Deaths from diarrhœa secondary to some other well-defined disease should be included under the latter. This alteration in the diseases classified under the head of diarrhœa, which became operative during 1906, is difficult to understand — and, notwithstanding an explanation sent out at the commencement of the year, 71 Medical Officers of the County districts have had the trouble of re-casting their statistics relating to diarrhœa. It is also well to remember that the diarrhœa death-rates for 1906 include for the first time the deaths of children *under one year* registered as due to Enteritis, Muco-enteritis, Gastro-enteritis, Gastritis, and Gastro-intestinal catarrh. The changes mentioned have had the effect of causing 456 deaths due to Enteritis, &c., which occurred during 1906, to be classified as Diarrhœa, and increasing the rate of deaths under this head by 0·26 per 1,000; further, comparison with the diarrhœa rates of previous years will be rendered difficult. The total deaths from the diseases included under the heading diarrhœa numbered 1,843, against 924 deaths last year, 1,245 in 1904, 757 in 1903, 519 in 1902, and 1,752 in 1901. The County rate, as now estimated, was equal to 1·05 per 1,000 — in urban districts 1·12 and in rural districts 0·60; while last year it averaged 0·52 in the County—0·54 in the urban and

0·34 in the rural districts. In England and Wales the rate in 1906 averaged 0·87, and 1·16 in 76 great English towns. The mean County diarrhœa rate for the 10 years 1896-1905, *not* including deaths from Enteritis, was 0·67. In the following districts the highest diarrhœa death-rates were recorded, viz., Golborne 3·57, Little Lever 2·96, Prescott 2·8, Ince-in-Makerfield 2·60, Gorton 2·42, Haydock 2·33, Farnworth 2·19, Orrell 2·16, Widnes (B.) 2·15, Swinton and Pendlebury 2·06, Hindley 2·02, and Leigh (B.) 2·0.

The County diarrhœa rates are tabulated below, also those of England and Wales and the 76 great towns for the years 1906-1896 :—

	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896
Administrative County..	1·05	0·52	0·66	0·40	0·28	0·95	0·60	1·05	1·00	0·77	0·48
Urban Districts	1·12	0·54	0·69	0·42	0·30	1·01	0·65	1·12	1·06	0·80	0·52
Rural Districts	0·60	0·34	0·41	0·26	0·14	0·52	0·27	0·53	0·55	0·56	0·28
England and Wales	0·87	0·59	0·86	0·50	0·38	0·91	0·69	0·98	0·96	0·86	0·55
*76 Large English Towns	1·16	0·83	1·20	0·71	0·54	1·23	0·94	1·21	1·22	1·24	0·79

* The rates for 1896-1901 refer to 33 Towns.

The monthly incidence of diarrhœa in 1906, as shown by the deaths occurring in districts making returns is given in the following Table :—

1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
January ... 13	April 15	July 41	October ... 256
February ... 11	May 16	August ... 247	November. 52
March 13	June 24	September.. 629	December. 22
37	55	917	330

The diarrhœa mortality was unusually marked in September, when the mean temperature at Stonyhurst was 54·9; October came next with temperature averaging 49·7; while in July, with mean temperature 58·7 there were comparatively few deaths. In the previous year the diarrhœa mortality was accentuated in August, mean temperature 57·0; September, mean temperature 52·6, coming next; then July, mean temperature 60·8. Under the head of infant mortality the importance of private cleanliness has been alluded to, and the cleanliness of the milk supplied to infants is specially referred to in a paper on milk, appended.

Distriet Medical Officers of Health refer generally to the injurious effects due to "the indisposition of many mothers to feed their infants at the breast, coupled with the very prevalent use of the iniquitous long tube feeding bottle," (Accrington B.). In connection with the effect of food on infants the Medical Officer of Health, Colne (B.), had samples of milk analysed, and they were found to contain "an excessive quantity of filth, principally in the form of faecal matter derived from the cow." Medical Officers of Health for Heywood (B.), Kearsley, Lancaster (B.), Leigh (B.), Litherland, Orrell, Oswaldtwistle, Worsley, &c., all tell the same tale with respect to the enormous risks run by "bottle-fed" children.

Haydock.—Dr. Dowling reports that diarrhœa was very prevalent and was alone responsible for a death-rate of 2·33 per 1,000 of the population. Eighteen deaths occurred amongst infants under one year of age, the illness no doubt in many cases being due to errors in feeding. Copies of the County Council circular on the feeding and care of infants were distributed, and also a handbill drawing special attention to the fact that sterilized humanized milk could be obtained for hand-fed infants at the Infant Milk Depôt, St. Helens, and strongly recommending its use.

Gorton.—In this district it is interesting to observe that

“ of 75 deaths which occurred from July 13th to August 25th, 60 were in houses of the privy midden type, and 15 in houses with water closets. The enquiries bring out very forcibly the influence of privy middens upon the disease, and consequently the effect that particular system of disposal of sewage has upon the infantile mortality of the nation.” The difference of mortality in houses provided with privy middens and water closets is even greater than indicated by the figures, as in the case of infected houses provided with water closets more than one-half of them were in close proximity to privies.

Widnes (B.).—Dr. Brebner says we are sure to have large numbers of “ diarrhoeal diseases and enteric fever, so long as the privy system of refuse disposal remains.”

Epidemic Influenza was responsible for 211 deaths against 205 in 1905, 196 in 1904, 224 in 1903, 226 in 1902, 231 in 1901, and 801 in 1900. The deaths were most numerous in Darwen (B.) 7, Farnworth 6, Heywood (B.) 6, Lancaster (B.) 6, Leigh (B.) 10, Radcliffe 6, Widnes (B.) 10, Worsley 7, and Whiston (R.) 6. The disease proved most fatal in the second quarter, then the first, and in the fourth quarter the lowest number of deaths was recorded. It is stated that Chadderton was affected with a widespread outbreak of influenza in the latter part of December: while, in Oswaldtwistle, the Medical Officer of Health reports that a remarkable outbreak occurred at St. Mary's School, Cocker Brook, in the month of March. Every scholar contracted the disease, and even the head-mistress and teachers did not escape. In consequence the school was closed and disinfected.

Respiratory Diseases—comprising Bronchitis, Pneumonia, and Pleurisy—contributed 4,400 deaths; or 17·2 per cent. of the deaths from all causes. In 1905 there were recorded 4,557 deaths, or 17·9 per cent. of total deaths; 5,424 deaths in 1904, with a percentage of 18·5; and 4,996 in 1903, with a percentage of 17·7.

Below are given the respiratory death-rates per 1,000 of the population, compared with 1905 and 1904:—

	1906.	1905.	1904.
Administrative County.....	2.52	2.56	2.88
Urban Districts	2.60	2.66	2.94
Rural Districts	1.90	1.94	2.42

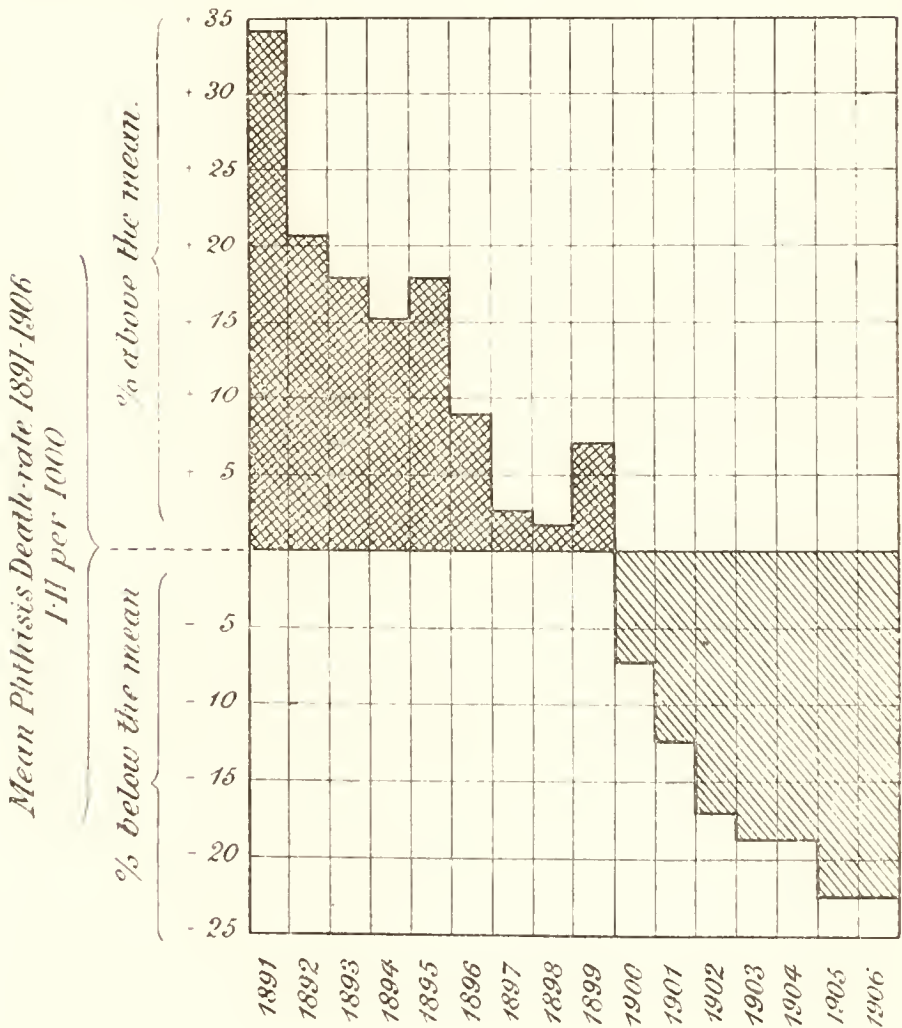
The County rate for the 10 years, 1896-1905, averaged 3.06, or 0.54 above the rate for 1906, which is the lowest so far recorded. At Swinton and Pendlebury, in consequence of the high mortality from respiratory diseases, a Sub-Committee was appointed to deal with the question, and after due consideration, expressed the opinion that infants should be better looked after as regards warmth and cleanliness, and also that "greater precautions should be taken by adults with respect to sudden changes of temperature in crowded and heated rooms where the air is vitiated." The highest respiratory rates were attained in Ince-in-Makerfield 6.21, Whitfield 4.97, Hurst 4.93, Skelmersdale 4.6, Aspull 4.53, Childwall 4.5, Whitworth 4.24, Blackrod 4.0, Swinton and Pendlebury 3.96, Little Lever 3.88, and Royton 3.84.

Heart Diseases accounted for 2,331 deaths, or 114 more than in 1905. The rate per 1,000 was 1.33 against 1.24 last year, 1.28 in 1904, 1.30 in 1903, 1.24 in 1902, and 1.27 in 1901. The average for the 10 years 1896-1905 was 1.26.

Tuberculous Phthisis (pulmonary tuberculosis) was credited with 1,510 deaths, or 20 less than last year, and gave a percentage equivalent to 5.9 of the total mortality. The County rate from this disease is exactly the same as in 1905, viz., 0.86—the lowest yet recorded. The urban rate was 0.89,

and the rural 0.63. In 1904 and 1903 the County rate equalled 0.90. The past decade, 1896-1905, averaged 1.02, and the reduction in 1906 of 0.16 per 1,000 represents an annual saving of 278 lives. The highest rates were recorded in Chadderton 1.72; Denton, Droylsden, and Little Crosby each 1.66; Failsworth, 1.61; Middleton (B.), 1.55; Grange-over-Sands, 1.50.

The diagram below shows the annual County deaths from tuberculous phthisis from 1891-1906 in relation to the mean of that period.



Since 1903 phthisis has not shown the proportionate decrease as in previous years, the death-rates of the past two years being exactly alike, and only fractionally below the two preceding years. Further reductions can scarcely be expected until more attention is paid in districts to sanitary measures such as cleansing, isolation, and disinfection, which follow in the wake of compulsory notification. The open-air treatment on simple and inexpensive lines can be adopted with advantage by the phthisical patients in the early stages of the disease, while local authorities can take measures to prevent expectoration in public streets, workshops, or vehicles. Now that recent investigations have shown that there is "an essential unity not only in the nature of the morbid processes induced by human and bovine tubercle bacilli, but also in the bacteriological characters of the tubercle bacilli which cause these processes," it is important that the character of animal food should be carefully investigated, and every precaution should be taken to prevent the possibility of cows' milk containing bovine tubercle bacilli being consumed by human beings, especially the very young.

Other tuberculous diseases contributed 780 deaths, and, together with 1,510 from phthisis, accounted for 2,290 deaths, equal to a rate of 1·31 per 1,000 of the population. The rate in 1905 was the same, whilst it equalled 1·41 in 1904, 1·38 in 1903, 1·35 in 1902, and 1·5 in 1901.

It is interesting to note that in Little Hulton, in order to combat the spread of phthisis, tents have been purchased for the day use of persons suffering from this disease, and already they have proved of great benefit as a means not only of improving the patients' health, but of stopping the spread of infection. Dr. Trimble (Walton-le-Dale), draws attention to the value of the open bedroom window. "It is singular," he says, "how widespread and obstinate is the objection to fresh air: the prejudice against an open window at night being not by any means confined to the working classes."

Cancer, or malignant disease, was the cause of 1,214 deaths, equivalent to a rate of 0·69 per 1,000 of the population. In urban districts the rate was 0·69 and in rural districts 0·68. The deaths and rates for each year since 1,900 (when cancer was first included in the Local Government Board Tables) are given below :—

Year.	No. of Deaths.	Death-rate per 1,000 living.
1900	1,072	0·54
1901	1,149	0·62
1902	1,113	0·60
1903	1,223	0·65
1904	1,229	0·65
1905	1,164	0·65
Average 1900-5	1,158	0·61
1906	1,214	0·69

Infectious Diseases Notification.—The total cases of infectious diseases notified during the year amounted to 11,119, or 2,496 below the number recorded in 1905, and 6,486 below the notifications in 1904. As compared with 1905 the chief decreases were due to small-pox 22, scarlet fever 1,034, enteric fever 87, erysipelas 254, measles 860, chicken-pox 312. The reduction in notifications respecting the last two diseases was chiefly owing to the fact that Southport (B.)—where both are compulsorily notifiable—no longer forms part of the County area. The only increase was under the head of diphtheria, which was credited with 1,497 cases as compared with 1,364 in 1905, being an increase of 133 cases. In the following Table the cases notified in 1906, as well as those for the previous year are classified :—

Diseases.	1906.			1905.		
	Urban Districts.	Rural Districts.	Total.	Urban Districts.	Rural Districts.	Total.
Small-pox	210	23	233	248	7	255
Scarlet Fever ...	5638	735	6373	6515	892	7407
Diphtheria	1290	207	1497	1177	187	1364
Membranous Croup	101	5	106	114	8	122
Typhus Fever ...	...	...	...	...	...	...
Enteric Fever ...	1104	144	1248	1201	134	1335
Continued Fever..	13	1	14	29	1	30
Puerperal Fever..	102	8	110	122	14	136
Erysipelas.....	1165	139	1304	1406	152	1558
Measles ...	76	4	80	744	196	940
Whooping Cough	...	...	...	...	2	2
Chicken-pox	154	...	154	459	7	466
Rötheln .....	...	...	...	...	...	...
Relapsing Fever..	...	...	...	...	...	...
Cholera ..	...	...	...	...	...	...
Total	9853	1266	11119	12015	1600	13615

Measles is made compulsorily notifiable in St. Annes-on-the-Sea, Standish-with-Langtree, Thornton, Upholland, and Lunesdale (R.), while chicken-pox is notifiable in Bacup (B.), Chadderton, and Lunesdale (R.). Arrangements are made for the voluntary notification of phthisis in 20 districts. With regard to the latter, Dr. Challinor (Leigh R.) remarks that no good can result unless the information is followed by special attention to the cases in the way of providing hospital accommodation, personal visiting, and periodical supervision, with systematical instruction of the people concerned as to how disinfection can be carried out and precautions taken to prevent the spread of the disease. In some districts school teachers are supplied with post cards to be sent to the Sanitary Authority on the occurrence of infectious disease among the scholars. The system is a good one and, where intelligently carried out, will tend to prevent the spread of infection in schools.

TABLE B.

HOSPITAL PROVISION IN VARIOUS DISTRICTS OF THE ADMINISTRATIVE COUNTY.

(PARTICULARS TAKEN FROM THE HEALTH REPORTS FOR THE YEAR 1906).

Districts with Hospitals. (1)		Districts with Small-pox Hospital Scheme in progress. (2)	Districts claiming the Privilege of send- ing Patients to Hospitals as printed in parentheses. (3)	Districts without Hospital Accommodation. (4)
Abram.	Radcliffe.	Abram.	Allerton (Whiston R.).	Grange-over-Sands.
Ashton-in-Makerfield.	Ramsbottom.	Ashton-in-Makerfield.	Aspull (Wigan).	Great Harwood.
<i>k</i> Ashton-under-Lyne B.	Tottington.	Aspull.	*† Bacup B. (Sourhall, Todmorden).	Little Crosby.
Birkdale.	Whitefield.	Billinge.	*† Barrowford (Nelson).	Orrell.
Carnforth.	Bury R.	Blackrod.	* Childwall (Liverpool).	Rishton.
Darwen B.	§ Horwich.	Hindley.	† Church (Blackburn).	
Heysham.	§ Westhoughton	Horwich.	*† Clayton-le-Moors (Accrington).	
Ince-in-Makerfield.	Blackrod.	Ince-in-Makerfield.	† Croston (West Lancashire R.).	
Lancaster B.	Littleborough.	Orrell.	Denton (Hyde).	
Morecambe B.	Milnrow.	Standish-with-Langtree.	Droylsden (Hyde).	
Lathom & Burscough	Wardle.	Upholland.	Eccles B. (Salford).	
Ormskirk.		Westhoughton.	Failsworth (Oldham).	
* Upholland.		Wigan R.	Formby (Birkdale).	
Walton-le-Dale.	FOR SMALL-POX ONLY.		Great Crosby (Liverpool).	
Widnes B.	* Accrington B.		§ Haydock (St. Helens).	
Withnell.	* Billinge (Cottage).		Heaton Norris (Salford).	
Lunesdale R.	* Colne B.		Huyton-with-Roby (Whiston R.).	
West Lancashire R.	* fGorton.		*† Irlam (Salford).	
Whiston R.	* Haslingden B.		<i>a</i> Kearsley (Salford).	
Atherton.	Heywood B.		† Lees (Oldham).	
Golborne.	<i>j</i> Hindley.		Levenshulme (Manchester).	
Leigh B.	Mossley B.		Litherland (Bootle).	
Tyldesley.	* Nelson B.		* Little Woolton (Whiston R.).	
Leigh R.	* Norden.		Middleton B. (Rochdale).	
Farnworth.	* Oswaldtwistle.		Much Woolton (Whiston R.).	
Little Hulton.	* Rainford (Cottage).		Newton-in-Makerfield (Liverpool and Warrington).	
Little Lever.	* Rawtenstall B.		† Prescott (Whiston R.).	
Adlington.	<i>j</i> Skelmersdale (Cottage).		Prestwich (Salford).	
Chorley B.	* Standish-with-Langtree (Cottage).		Stretford (Salford).	
Leyland.	* Whitworth.		*† Trawden (Colne).	
Chorley R.	<i>g</i> Sefton R. (*Cottage).		<i>a</i> Turton (Bury Joint).	
Dalton-in-Furness.	* Wigan R. (Cottage).		Urmston (Salford).	
Ulverston.	Chadderton.		Waterloo-with-Seaforth (Liverpool).	
Ulverston R.	* Crompton.		Barton-upon-Irwell R. (Salford).	
|| Fleetwood.	Royton.		Blackburn R. (Blackburn B. and Withnell).	
Kirkham.	<i>i</i> Audenshaw.		Lancaster R. (Lancaster B.).	
Lytham.	Hurst.		Warrington R. (Warrington B.).	
St. Annes.	Limehurst R.			
* Poulton.				
Thornton.	Garstang R.			
Bispham.	Preesall.			
Fylde R.				
Preston R.	<i>h</i> Swinton and Pendlebury.			
Fulwood.	<i>h</i> Worsley.			
Longridge.				
Brierfield.	Clitheroe B.			
Padiham.	Clitheroe R.			
Burnley.				

* Not used during the year. † Privilege not taken advantage of during the year. ‡ Provision for small-pox only. || Port Hospital also provided. § Temporary accommodation for small-pox cases sent to Finnington Hospital, Blackburn. Ordinary infectious cases sent to (d) Oldham, (e) Burnley Joint, (f) Manchester and Stockport, (g) Liverpool, (h) Salford, (i) Hyde. j Used during 1906 for scarlet or enteric fever cases. k During 1906 reserved entirely for small-pox. l Hospital completed but not opened.

Isolation Hospitals.—The position of the County as regards hospital provision is tabulated below. Very little difference is noticeable as compared with the previous year. Only five small districts, with a population of 29,508, now remain entirely without hospital accommodation.

	Boroughs	Urban Districts.	Rural Districts.	Total.	Estimated Population, 1906.	Acreage (per Census Return).
Districts with Hospitals	7	42	10	59	813,142	655,137
Districts with Small-pox Hospitals only... ..	8	17	5	30	470,967	215,293
Districts with Hospital Schemes in progress* ... ..	...	...	...	...	...	...
Districts claiming the privilege of sending patients to Hospitals in other Districts	3	30	4	37	430,030	187,277
Districts without Hospital accommodation ... ..	...	5	...	5	29,508	10,913
Total	18	94	19	131	1,743,647	1,068,620

* Thirteen districts (already included in other columns) are combined under the Wigan and District Joint Hospital Order for the purpose of providing a Small-pox Hospital.

Table B. appended gives the names of the various districts with their present position in regard to hospital provision.

The following references to hospital accommodation are of interest:—

Ashton-in-Makerfield.—The new hospital was opened in the summer, the old buildings having been re-modelled internally. Thirty beds are now available, and in addition a small hospital is provided at Edge Green for small-pox.

Chorley (B.).—The Council has, during the year, relaxed the stringency of the regulations respecting sending patients

suffering from scarlet fever to the hospital, and has instructed the Medical Officer of Health only to insist upon the removal of those cases where in his opinion sufficient isolation can not be procured at home.

Grange-over-Sands. — The Medical Officer of Health strongly recommends that, if it is not desirable at the present juncture to provide separate accommodation, an arrangement should be made with the Ulverston Joint Hospital Board to treat urgent cases from this district at their sanatorium.

Haslingden (B.).—Negotiations are now pending with Bacup (B.) and Rawtenstall (B.) for the erection of a joint hospital, and it is hoped the project will be urged forward with as little delay as possible.

Newton-in-Makerfield.—“ Much more use might be made of hospital treatment for cases of scarlet fever and diphtheria.” The site and erection of an isolation hospital for the district “ are matters not yet definitely settled.”

Garstang (R.).—The only provision available is for small-pox at the Elswick joint hospital. The Council has carefully considered the question of providing accommodation for ordinary infectious cases, but nothing practical has been evolved.

In two or three districts Medical Officers of Health report that the home isolation of infectious diseases has been tried, and in one district “ it is proving successful.” Probably from an economical point of view such a system might prove acceptable, but on no other grounds. Experience shows that isolation hospitals (*a*) limit the spread of infection, (*b*) give the patient the best chance of recovery, and (*c*) save households the necessity of quarantine with the attendant monetary loss and inconvenience.

Particulars of the joint hospital districts formed by the County Council under the Isolation Hospitals Act are contained on the following page.

District.	Date of Order.	Progress made towards Hospital Provision.
Chadderton Crompton Royton	Ang. 2, 1894	Small-pox accommodation for 12 patients. £5,150 borrowed from County Council.
Preston (R.) Fulwood Longridge	Nov. 7, 1895	Hospital completed, comprising scarlet fever pavilion (22 beds), observation pavilion (4 beds), administrative block, &c. Opened 4th September, 1907. Money borrowed from County Council, £16,500; total cost about £14,700.
Fleetwood Kirkham Lytham St. Annes-on-the-Sea Poulton-le-Fylde Thornton Bispham-with-Norbreck Fylde (R.)	Nov. 7, 1895	Hospital erected at Moss Side (Fylde R.); 30 beds. Opened for the reception of patients, 14th April, 1902. Money expended on buildings, &c., £17,166 11s. Money borrowed from County Council, £17,180.
Fylde Preston Garstang Unions	Urban & Rural Districts Nov. 7, 1895	Hospital erected at Elswick for the isolation of 32 small-pox patients. Emergency pavilion also provided for the reception of 12 patients at a cost of £900. £18,850 borrowed from County Council.
Horwich Westhoughton Blackrod	Nov. 2, 1899	Hospital with accommodation for 22 scarlet fever, 12 enteric fever, and 4 diphtheria patients. Opened in April, 1905. Total cost, £19,098.
Littleborough Milnrow Wardle	Feb. 1, 1900	Hospital with scarlet fever pavilion (12 beds), observation pavilion (4 beds), administrative block, &c. £10,030 borrowed from County Council. Application received for further loan of £800. Total cost, £10,869. Opened 16th February, 1907.
Abram Ashton-in-Makerfield Aspull Billinge Blackrod Hindley Horwich Ince-in-Makerfield Orrell Standish-with-Langtree Upholland Westhoughton Wigan (R)	May 7, 1903	Beyond giving the subject careful consideration, practically nothing has been done.

Hospital accommodation (apart from the districts with provision for small-pox only and those claiming privilege of sending cases to hospitals in other districts) is now provided in 59 districts, column (1) Table B., but in the case of Preston (R.), Fulwood, and Longridge, and Littleborough, Milnrow, and Wardle the buildings were not opened for the reception of cases until after the end of the year. In the 53 districts 4,774 cases of infectious disease were notified (excluding measles), and 1,948 or 40·8 per cent. received hospital isolation, as compared with 40·0 per cent. in the preceding year, 36·9 in 1904, 41·0 in 1903, 32·5 in 1902, 27·8 in 1901, and 30·0 in 1900. The total number of scarlet fever cases notified in these districts amounted to 2,612, and 1,342 or 51·3 per cent. were removed, against 48·8 per cent. removed from districts provided with hospitals in the previous year, 41·6 in 1904, 45·3 in 1903, 41·8 in 1902, 40·1 in 1901, 39·8 in 1900, 35·2 in 1899, 36·5 in 1898, and 37·6 in 1897. Of the scarlet fever patients removed from the before-mentioned 53 districts 37 died in hospital, equal to a case mortality of 2·7 per cent., as compared with a percentage of 2·0 in 1905, 2·6 in 1904 and 1903, 3·2 in 1902, 2·9 in 1901, 2·6 in 1900, and 3·6 in 1899. The remainder of the scarlet fever attacks in these districts (1,270) were treated at home, and 43 or 3·3 per cent. had a fatal termination. In 46 other districts where the *whole* of the scarlet fever cases notified (1,417) were treated at home the case mortality was equal to 2·6 per cent.

Thirty-seven districts, column (3) Table B., claim the privilege of sending cases to hospitals in other districts, but in 7 of these the arrangement is for the treatment of small-pox cases only. In these districts 2,661 cases of infectious disease were notified, and 563 or 21·1 per cent. of removals took place, against 22·7 per cent. last year, 21·4 per cent. in 1904, 26·8 in 1903, 21·5 in 1902, 23·7 in 1901, 18·1 in 1900, 16·9 in 1899, 17·6 in 1898, and 10·6 in 1897. In 12 of these districts the privilege claimed was not taken advantage of, or not required, and in 8 others the removals varied from 1 to 7.

Disinfection.—There still remain 55 districts without disinfecting appliances, 22 possess steam apparatus, 35 make use of hospital disinfectors (steam), 10 have working arrangements with County or Non-County Boroughs or other districts, and 9 use dry heat appliances. No apparatus is provided at Andenshaw; the Medical Officer of Health urges the Council to make such provision, being convinced that disinfecting apparatus would be of great service in preventing the spread of infection. For some years the Medical Officer of Health of Barrowford has advised the Council in this direction but without effect. In Denton it is reported that there is urgent need of appliances, and the same remark is applicable to Heysham, Litherland, Newton-with-Makerfield, Padiham, Poulton-le-Fylde, &c. It is satisfactory to note that Leigh (B.) has, during the year, become possessed of a disinfecting equipment, which will prove of the greatest value in taking action against epidemic disease.

Sanitary Administration.—In the summarised reports appended, will be found special references to the sanitary work carried out in each district. Some Authorities, it is pleasing to observe, give satisfactory indications of an increasing desire to put into operation the best methods of sanitation with a view to improving the public health and the comfort of the inhabitants under their charge. But there are many governing bodies, more especially in rural areas, too much influenced by ideas of economy to do good work or even carry out reasonably the duties imposed on them. As a result, the conditions mentioned in the earlier portion of my report as conducive to diarrhoea, enteric fever, and filth diseases generally are allowed to exist year after year, and yet no efficient action is taken. The total nuisances abated in the County districts numbered 40,110, as compared with 40,760 in the previous year; 22,841 notices were served, and legal proceedings were necessary in 46 instances.

Sufficient attention is not given, in my opinion, to the removal of nuisances inherent to privy middens. There were altogether 2,524 conversions to water closets or waste-water closets referred to in the reports, but these are much too few for so large a County ; 415 pail closets were converted to the water carriage system, and 16 pail closets substituted for privies. The conversions are mostly confined to the large urban districts more or less of a residential character. The houses in many urban districts occupied by the operative classes are provided almost entirely with privy middens, and there is very little likelihood of a change taking place in respect of this objectionable system. Such districts may be readily recognised by their distinguishing features—high infant and epidemic death rates. In rural districts, except in the better class houses, privy middens of the worst character are found : the spaces below the seats are as a rule roughly lined with brickwork or merely dug out pits in the earth, which readily allow the liquid excremental contents to soak into the subsoil or foundations of the dwellings in close proximity. As the result of an effort made to ascertain the position as regards closet accommodation in the County, information has been obtained showing that in the 92 urban districts supplying these particulars there are at least 52,444 privy middens, 52,471 pail closets and 99,478 water closets. Conversions of privy middens to the water-carriage system have been carried out somewhat extensively in the following districts :—Accrington (B.) 157 pail closets were converted to water closets, in Ashton-under-Lyne (B.) 268 privies were so converted, in Audenshaw 117, Dalton-in-Furness 100, Droylsden 114, Eccles (B.) 240, Heywood (B.) 99 and 33 pails ; Leigh (B.) 130, Levenshulme 81, Much Woolton 61, Oswaldtwistle 134, Radcliffe 207, Swinton and Pendlebury 126, Thornton 102, and Tyldesley-with-Shakerley 70. In certain districts assistance is given towards privy conversions, for instance, in Audenshaw where the Council have asked the Local Government Board to sanction a loan of £3,645 to be expended in this manner.

Housing of the Working Classes.—Reference is made in 42 reports respecting the action taken under this head. It appears that altogether 234 houses were condemned and dealt with, as tabulated below :—

	Condemned	Closed.	Demolished.	Made Habitable.
Urban Districts.....	214	135	79	100
Rural Districts.....	20	6	8	17
Administrative County	234	141	87	117

The character of a large proportion of the cottages occupied by the working classes in the County districts is far from satisfactory. Many of them are quite unfit for habitation and indicate a want of attention on the part of the authorities. In many of the districts back-to-back cottages exist which ought to be cleared away, and there are also blocks of houses in courts and narrow streets waiting for the operation of the Housing of the Working Classes Acts. The most insanitary cottages are found in the rural districts, and as intimated by Medical Officers of Health, the authorities are often afraid of taking action, owing to the dearth of cottage accommodation. Consequently, the labouring classes find themselves too often housed in damp, dilapidated, improperly drained dwellings, and unprovided with water fit for drinking purposes. The owners of such property are not always persons too poor to carry out the necessary improvements, for the rich employers of agricultural labour are often equally guilty. Holding this opinion it is satisfactory to observe that in the Report presented to Parliament in December, 1906, the Select Committee on the Housing of the Working Classes Acts Amendment Bill express themselves as convinced "that no real reform can be brought about without some appreciable departure from precedent, and they feel confident that if the authorities proposed to be entrusted with these responsibilities administer the law in a prudent spirit the evils which now

present so grave an aspect throughout the Country, both in rural and urban districts, will be gradually diminished." The main suggestions are (*a*) to transfer the administration of the Public Health and Housing of the Working Classes Acts from the rural district councils to the County Councils, retaining to rural district councils the concurrent power to build under Part III. of the "Housing of the Working Classes Act, 1890:" and (*b*) to simplify the mode of procedure of the Public Health and Housing Acts.

Canal Boats.—The requirements of the Acts relating to canal boats have been carried out. Altogether 1,319 inspections have been made, and 28 infringements of the Acts came under notice. In the previous year there were 1,289 boats examined, and 47 infringements observed. The inspections were most numerous in Abram 45, Eccles (B.) 51, Failsworth 52, Ince-in-Makerfield 64, Lancaster (B.) 87, Leigh (B.) 113, Littleborough 48, Radcliffe 46, Widnes (B.) 64, Worsley 59, Garstang (R.) 53, Lancaster (R.) 62, Leigh (R.) 179, West Lancashire (R.) 44, and Wigan (R.) 67.

Slaughter-houses have, on the whole, received satisfactory attention in the County districts. Medical Officers of Health complain of the difficulty of meat inspection in private slaughter-houses, owing to their being often widely scattered over large areas. As animals are mostly slaughtered on the same two days of the week, the Inspector recognises the impossibility of visiting each slaughter-house while killing is going on, and the unscrupulous butcher knows that it is less difficult to dress diseased animals in private slaughter-houses than in public abattoirs where thorough inspection can be readily carried out. The following authorities, admitting the objection to private slaughtering, have provided themselves with public slaughter-houses, viz., Accrington (B.), Chorley (B.) (improvements contemplated), Clitheroe (B.) (recently

completed), Colne (B.), Darwen (B.), Fleetwood, Great Harwood, Lancaster (B.), Oswaldtwistle, St. Annes-on-the-Sea, and Withnell, while Medical Officers of Health of the following districts strongly recommend their Councils to make similar provision :—Ashton-under-Lyne (B.), Birkdale, Clayton-le-Moors, Haslingden (B.), Morecambe (B.), Padiham, Stretford, and Swinton and Pendlebury.

In a recent circular issued by the Local Government Board, attention is drawn to the practice of “some dealers though aware of the diseased condition of animals coming into their hands, so to dispose of them or of their carcases, that there is risk that they will be used as food for the poorer classes in London and other large towns.” It is recommended that the officers engaged in administering the provisions of the Dairies, Cowsheds, and Milkshops Orders “observe particularly the condition of the cows which come under their notice, and where any animal is clearly diseased and presumably unfit for food to take such steps as are practicable to ensure that in the event of the animal being slaughtered, the carcase is disposed of properly.”

Dairies, Cowsheds, and Milkshops.—In May, 1907, a return was laid before Parliament showing “the names of the Councils of Boroughs and Urban and Rural Districts who have made regulations under the Dairies, Cowsheds, and Milkshops Order, 1885.” By means of this return correct information has now been obtained as to the position of the County districts in regard to milk regulations. It appears that in 100 urban and 15 rural districts regulations have been adopted, and 12 urban and 4 rural districts are without such provision, although in the districts of Tottington, Bacup (B.), and Horwich regulations have been sanctioned by the Local Government Board, but not yet become operative. During 1906 regulations were adopted or came into operation in Blackrod, Brierfield, Carnforth, Church, Grange-over-Sands,

Preesall-with-Hackinsall, and Wigan (R.). In the following districts regulations have not been adopted, but generally it may be said that they are "under consideration":—Allerton, Barrowford, Childwall, Leyland, Little Crosby, Orrell, Poulton-le-Fylde, Skelmersdale, Trawden, and the rural districts of Chorley, Garstang, Lunesdale, and Whiston. More attention has been paid to the supervision of the milk trade during the past year, but even the best, in the estimation of local Councils, is not satisfactory, and it is not difficult to agree with the opinions expressed by Medical Officers of Health who have made careful inspections of the cowsheds in their districts, that "practically the whole of these premises require considerable improvement as regards drainage, ventilation, air space, &c., while some of them would even do with re-construction." The Medical Officer of Health, Middleton (B.), states that the hygienic conditions under which the cows are kept are "very bad indeed." In the best of the shippens, with one or two exceptions, the admission of light is only fair, whilst in the worst, light is almost shut out; ventilation is defective and the drainage requires alteration.

Rawtenstall (B.).—Very few of the cowsheds comply with the requirement of 800 cubic feet of air space per cow, and the animals and the shippens are not always kept in that cleanly state necessary to ensure a clean and wholesome supply of pure milk.

St. Annes-on-the-Sea.—Some of the cowsheds are still over-crowded and badly ventilated, and, in some instances, the farmyards are badly paved and drained.

Barrowford.—The dairies are well kept, and the cowsheds clean, but most of the latter are short of air space, light, and ventilation. Dairy and cowshed regulations are not in force.

Darwen (B.).—Although much has been done in recent years, some of the cowsheds and dairies are still in a very

dilapidated condition, whilst the drainage in most cases ought to be thoroughly overhauled. In many instances, where improvements had been made to provide fresh air and light, the openings were found to be filled with hay or other material.

Eccles (B.).—There is no doubt that in many rural districts the Order is a dead letter, and it would be advisable to enact that where the sanitary authority is in default the obligation to enforce the Order should devolve on the County Council, and also that the adoption of Regulations should be made compulsory and not permissive.

Lancaster (R.).—The condition of dairies and cowsheds, although some improvement has taken place, still leaves much to be desired. Better floors, better drainage, and more frequent and thorough cleansing of the walls, &c., are required. Attention should also be directed to the provision of more air space.

The importance of a pure milk supply gains enormous support from the investigations conducted in connection with the Inquiry of the Royal Commission into the relations of Human and Animal Tuberculosis. Part I. of their second interim report recently published, contains the following important conclusions :—“ There can be no doubt but that in a certain number of cases the tuberculosis occurring in the human subject, especially in children, is the direct result of the introduction into the human body of the bacillus of bovine tuberculosis, and there also can be no doubt that in the majority at least of these cases, the bacillus is introduced through cows' milk. Cows' milk containing bovine tubercle bacilli is clearly a cause of tuberculosis and of fatal tuberculosis in man.”

The facts investigated by the Commission indicate that “ a very considerable amount of disease and loss of life, especially among the young, must be attributed to the

consumption of cows' milk containing tubercle bacilli. The presence of tubercle bacilli in cows' milk can be detected, though with some difficulty, if the proper means be adopted, and such milk ought never to be used as food. There is far less difficulty in recognising clinically that a cow is distinctly suffering from tuberculous, in which case she may be yielding tuberculous milk. The milk coming from such a cow ought not to form part of human food, and indeed ought not to be used as food at all."

The results of the inquiries made by the Commission clearly point to "the necessity of measures more stringent than those at present enforced being taken to prevent the sale or the consumption of such milk."

Common Lodging-houses.—There are not many references contained in the reports of Medical Officers of Health as to the condition of lodging-houses. Inspection seems to be regularly carried out, and, as a rule, the bye-laws are complied with. In Fleetwood, legal proceedings were taken in 5 cases for breaches of the bye-laws. The Medical Officer of Health of Farnworth advises the Council to take into consideration the question of providing a municipal lodging-house. Haslingden (B.).—The lodging-houses have been regularly inspected, and more attention given to the bye-laws. Attention is called to the want of provision at the lodging-houses for escape in the case of fire. Lancaster (B.).—Lodging-houses are on the whole fairly well kept, although 13 infringements of bye-laws noted. Rawtenstall (B.).—During the year, bye-laws relating to houses let in lodgings have been framed. Waterloo-with-Seaforth.—There are no common lodging-houses, but houses let in lodgings were kept under observation, 52 visits being made during the year: in 5 instances, overcrowding was discovered, and one house was found to be in a dirty condition.

Factories and Workshops.—Details are now supplied by the various districts concerning the action taken in respect of factories and workshops. The information received relating to inspections, &c., is given in the Table below :—

	FACTORY INSPECTION.						Total No. of Work- shops on Register.
	No. of Inspection. s.	No. of Written Notices.	No. of Prosecu- tions.	No. of Defects.		Referred to H.M. Inspector of Factories.	
				Found.	Remedied.		
Administrative County	13725	783	..	1297	1187	13	7256
Urban Districts	12742	730	..	1216	1109	10	6922
Rural Districts.	983	53	..	81	78	3	334

References are made to improvements which have been effected in regard to cleanliness, ventilation, &c., but more especially as regards closet accommodation. Conversions of old privy closets to the water-carriage system have taken place in a large number of factories. In some districts—Little Hulton, Longridge, &c., the closet accommodation of the mills is not at all satisfactory.

Bakehouses are mostly reported as satisfactory. According to information received, there were still 112 underground bakehouses in use at the end of the year.

Smoke Nuisance.—The tabulated statement appended shows that action was taken to abate the nuisance due to the emission of black smoke in 64 districts. The observations made numbered 2,302 against 2,490 last year, and legal proceedings were instituted in 38 instances, against 33 in 1905. The greatest activity was observed in the following districts where the observations were numerous, viz.—Ashton-under-Lyne (B.) 330, Darwen (B.) 319, Hurst 78, Leigh (B.) 95, Middleton (B.) 87, Stretford 198, Swinton and Pendlebury 193, and Turton 119.

DISTRICT.	No. of Smoke Observa- tions.	Time limit per hour— Minutes.	No. of Legal Pro- ceedings.	Result of Legal Proceedings
Accrington (B.)	19	8	..	One fined 5s. 6d. and costs; order to abate in other case.
Ashton-under-Lyne (B.) ..	330	8	2	
Audenshaw	Several	..	..
Bacnp (B.)	7	8	..	One fined 10s. and costs; order to abate in one case; four withdrawn.
Barrowford	7	..	..
Birkdale	6	..	..
Bispham-with-Norbreck ..	3	20	..	
Church	35	8	..	
Clitheroe (B.)	Several	..	..
Colne (B.)	22	..	..
Crompton	29	8	..	
Darwen (B.)	319	5 to 7 According to number of boilers.	6	
Eccles (B.)	40	6	2	Fines of 20s. and costs and 5s. and costs inflicted.
Failsworth	13	8	1	Fine of 10s. and costs inflicted.
Fleetwood	10	6 to 10	..	One fined 10s. and costs; orders to abate and to pay costs in other two cases.
Formby	12	4	..	
Gorton	57	8	..	
Great Crosby	8	..	..
Great Harwood	47	10	..	
Haslingden (B.)	28	10	..	
Heaton Norris	8	10	..	
Heywood (B.)	53	10	3	
Horwich	Several	15	..	
Hurst	78	3	..	
Huyton-with-Roby	12	7	..	Conviction.
Irlam	Several	16	..	
Kearsley	12	7½	..	
Lancaster (B.)	15	3	..	
Leigh (B.)	95	12	..	
Levenshulme	11	6	..	
Litherland	50	6	1	
Littleborough	29	8	..	
Little Hulton	10	10	..	
Lytham	6	..	..
Middleton (B.)	87	10	11	Fines inflicted in each case.
Milnrow	27	8	..	
Much Woolton	30	3	..	
Nelson (B.)	24	10	..	
Norden	2	..	..
Oswaldtwistle	12	8	..	
Padiham	6	15	..	
Prescot	1	..	..
Prestwich	21	5	..	
Radcliffe	63	10	..	
Ramsbottom	8	12	..	

DISTRICT. (Continued.)	No. of Smoke Observa- tions.	Time limit per hour— Minutes.	No of Legal Pro- ceedings.	Result of Legal Proceedings.
Rawtenstall (B.).....	22	Under con- sideration.	..	Fines & costs amount- ing to £16 0s. 6d. inflicted.
Rishton	8	..	..
Royton	22	..	..
Stretford	198	4	10	
Swinton and Pendlebury..	103	5	..	Fine of £2 2s. and costs inflicted.
Thornton	Irregular	..	..
Tottington	23	12	..	
Turton	119	12	1	
Wardle	4	8	..	To pay costs, order to abate obtained.
Waterloo-with-Seaforth ..	25	4	1	
Westhoughton.....	Casual	..	..
Whitefield.....	14	10	..	
Widnes (B.)	4	
Withnell	1	6	..	
Worsley	27	7	..	
Burnley (R.).....	12	..	..
Bury (R.)	18	..	..
Limhurst (R.)	40	3	..	
West Lancashire (R.).....	10	..	..
Total	2302	..	38	

Scavenging and Refuse Removal.—From the sanitary reports received, it appears that scavenging is carried out “satisfactorily” in 116 districts, “fair” in 5 districts, and “not satisfactory” in 9 districts. In one district—Farnworth—no information is given. The districts reported as “fair” are Childwall, Thornton, Whitefield, Bury (R.), and Fylde (R.). In the following districts scavenging is regarded as unsatisfactory, viz :—Leigh (B.), Little Hulton, Rainford, Blackburn (R.), Chorley (R.)—except in the townships of Coppull and Euxton, Limhurst (R.), Ulverston (R.) in certain parts. West Lancashire (R.), and Whiston (R.) except in two townships. Scavenging is undertaken by the Authority in 86 districts, by contract in 27 districts, by the Authority and contract in 13 districts, and by owners and occupiers in 5 districts.

Adlington.—The very noxious custom of emptying privy middens into the middle of the thoroughfare still exists.

Chadderton.—More attention should be paid to back passages which, in some instances, are unpaved, and sloppy in wet weather.

Norden.—At present a charge is made by the Authority for the removal of house refuse, but the Medical Officer of Health “looks forward to the time when the Council will be able to undertake such work free of charge.”

Lunesdale (R.).—“No change has taken place during the past year in connection with the scavenging and refuse removal of the district. In the villages of Halton, Wray, and Over Kellett, a voluntary system of scavenging exists which has worked satisfactorily; at Caton, where the system is compulsory, it has also been carried out efficiently.”

In several districts, Baeup (B.), Poulton-le-Fylde, Great Crosby, &c., the scavenging, formerly performed by contract, is now carried out by the Council's employees with more satisfactory results. The refuse destructors at Aeerington (B.) have been re-constructed and brought up-to-date, and at Leigh (B.) a new destructor has been provided. Chorley (B.).—Plans and estimates have been prepared for the erection of a small plant to convert fish offal into manure in order to supplement the existing apparatus. The provision of destructors is under consideration or recommended at Ashton-in-Makerfield, Birkdale, Droylsden, Heysham, Kirkham, Swinton and Pendlebury, and Worsley.

House Drainage, Sewerage, and Sewage Disposal.—The summarised reports contain references to the method of dealing with the sewage in each district. The urban districts have made considerable progress during the year, but much remains to be done in portions of all the rural districts in order to remove the nuisance due to defective drainage—one of the objectionable conditions so often encountered in villages. The cesspool system, with its attendant disadvantages, is

usually the means adopted for dealing with the sewage, or the more primitive method of draining into open ditches not unfrequently found in close proximity to the dwellings. Mr. Halliwell (Ribble Watershed) reports to the Joint Committee that "progress is being made with the extensions to works for the treatment of storm water, which at present causes marked pollution of the streams. The pollution in wet weather is much accentuated by road waters, especially in populated districts." The Chief Inspector for the Mersey and Irwell Watershed makes some pertinent remarks as to sewage treatment. The attempt to work sewage farms at a profit he regards as an obstacle in the way of successful treatment on land, and "although many farms on the watershed are worked very satisfactorily and with a view primarily to the treatment of the sewage, others are not given a chance, owing to what should certainly be called bad management."

The following are a few of the references showing the progress made in some of the localities :—

Failsworth.—In August, a Local Government Board Inquiry was held with respect to an application for sanction to borrow £3,466 for extension of the sewage works.

Fleetwood.—The new diversion scheme whereby the sewage will be discharged at another point into the sea is now well advanced, and it is hoped will be completed before the end of 1907.

Droylsden.—The Local Government Board have sanctioned a loan for the extension and alteration of the existing sewage works, and, after pressure by the Mersey and Irwell Joint Committee owing to the unsatisfactory character of the sewage treatment, the scheme is now being proceeded with.

Eccles (B.).—Two bacteria beds have been completed during the year, and a further one is now in course of

construction. A scheme for the disposal of the storm water at the sewage works by gravitation in lieu of pumping has been undertaken, and the works in connection with same are now being proceeded with.

Haydock.—The Council has in hand a sewerage scheme with effective arrangements for purifying the effluent. Commencement has been made in the easterly portion of the district, and this part of the scheme would probably have been completed had not an unforeseen difficulty arisen with regard to the acquisition of the necessary land for the purification works.

Hindley.—Sewage is treated on two farms, Hindley Green and Platt Bridge. A scheme for new works at the latter place has been sanctioned by the Local Government Board at a cost of £11,700.

Middleton (B.).—The Order of Court obtained by the Mersey and Irwell Watershed Joint Committee has been extended, and it is hoped that early in 1907 the new tanks at the outfall works will be completed as well as the new filtration area. The main sewer to couple up the Stakehill and Slattocks portion of the district is completed. The River Wince still retains its objectionable character, the smell arising from it during the summer months being very offensive.

Newton-in-Makerfield.—At Central works the cinder filter beds were each extended 60 feet by 20 feet. The sewage treatment, both at the Central and West End works, is by single contact, and not satisfactory. Contact beds at both works were entirely cleaned out and the filtering material renewed. Plans for a septic tank at the Central works are now being prepared.

Prescot.—Sewage is treated in settling tanks and by land filtration. Owing to the unsatisfactory condition of the farm

the Council have decided to complete an effective scheme for treating the sewage on the bacterial system.

Whitefield.—The Council have made application to the Local Government Board for sanction to borrow £2,590 for improvements at the sewage works.

Bury (R.).—The Local Government Board held an Inquiry in April respecting the application of the Council for borrowing powers for the construction of works at Unsworth and Bamford. The Council has come to an agreement with the Bolton Corporation for the treatment of the sewage from Ainsworth at the Hacken outfall works.

West Lancashire (R.).—In the greater part of the district the cesspool system, with its attendant disadvantages, is the only means of dealing with the sewage. Many of these cesspools become “a nuisance and a source of danger to health.”

The valuable work of drain testing has been carried out in the following districts:—Eccles (B.), the smoke test was applied to drains 612 times, and in Great Crosby on 304 occasions; in Haydock 67 drains were tested, 43 in Heaton Norris, 124 in Lytham, 293 in Turton, 360 in Waterloo-with-Scaforth, and 56 in Fylde (R.). The Medical Officer of Health of Stretford writes that the desirability of applying an efficient test to drains was demonstrated by the fact that of 533 drains tested in old property, 269 defects were observed, and of 1,015 tested in new property, 389 were found to be defective; four hundred and fifty sanitary fittings in new property were examined, and no less than 210 were not satisfactory. The sewers were periodically flushed and cleansed in many districts, for instance, Audenshaw, Billinge, Birkdale, Chorley (B.), Clitheroe (B.), Fleetwood, Irlam, Lancaster (B.), Lytham, Milnrow, Poulton-le-Fylde, Prestwich, Standish-with-Langtree, &c.

Water Supply.—Special references to this subject will be found in each summarised report. Satisfactory progress

has been made to improve the supply of water in the various districts, and it is now seldom that one hears of serious complaints. The condition of the water of the districts mentioned below might well receive attention :—

Bacup (B.).—Some of the private sources of water are liable to pollution from surface washings from manured fields. Several cases of lead poisoning occurred, one having a fatal termination. It is stated that when the new supply is ready, many of the suspicious water supplies will be stopped.

Colne (B.).—Water, obtained from Reedshaw Moss, is described as plentiful, but, as in previous years, a number of complaints have been received regarding its colour and taste, and the deposit of flocculent matter on standing. New filter beds will be provided during the year 1907.

Mossley (B.).—Water supply obtained from Swineshaw and Bills-o-Jacks reservoirs. The water has been examined for acidity three or four times a month, and it has always been present. No death occurred from lead poisoning due to the water supply, but at the end of March the medical men in the town reported to the Medical Officer of Health 41 cases of lead poisoning which had occurred during the previous five months. A letter was received from the Local Government Board, dated March 20th, 1906, in which it was stated that the water “should not be delivered through leaden pipes to consumers unless any acidity possessed by such water had been completely neutralized.” Some action is being taken, but so far the water continues acid and takes up lead as it passes through the pipes.

Rawtenstall (B.).—The many private supplies are a constant source of anxiety, and give rise to complaints; as a general rule the water, although good and plentiful, is conveyed and stored in unsuitable pipes and cisterns.

Chorley (R.).—The plans and estimates for the carrying out of a scheme for supplying the western portion of the district with water from the Thirlmere aqueduct are awaiting the approval of the Local Government Board; it is hoped that sanction will soon be received and the work proceeded with, as this portion of the district is very insufficiently supplied with water, and the inhabitants earnestly desire the completion of the scheme.

Garstang (R.).—Fylde water is supplied to various parts of the district. The main to the township of Inskip is practically complete. So far no definite progress has been made in Pilling, Bilsborrow, and Myerseough, all of which have requested water. A supply to Hambleton is urgently required. Samples of water are constantly being taken from wells in various parts of the district, and rarely is a wholesome water found. The ordinary wells of the district become “year by year more dangerous and risky.”

Lancaster (R.).—Some improvement has taken place in the supply to some of the farms in the neighbourhood of Cockerham, but many of these places are in a most unsatisfactory state as regards water. The supply to isolated cottages and those in the smaller villages is also in the great majority of cases very bad. The difficulty in the way of obtaining a better supply is mainly, if not altogether, a question of expense, for water cannot be publicly provided at the sanctioned cost.

Lunesdale (R.).—A portion of the village of Claughton is almost entirely dependent upon water from the stream which runs through the village. Last year, and for several years, this same stream was used in the Summer months for the washing of sheep. Such action necessarily caused great inconvenience to the inhabitants dependent upon the river water for domestic purposes. The Medical Officer has given orders that “on no account must it be used for such purposes again.”

Shop Hours Act, 1904. — This Act was passed August 15th, 1904, and enables Local Authorities to make "Closing Orders," and thereby to "fix the hours on the several days of the week at which, either throughout the area of the Local Authority or in any specified part thereof, all shops, or shops of any specified class are to be closed for serving customers."

A Closing Order is enforceable by courts of summary jurisdiction by fines of one pound for a first offence, five pounds for a second offence, and twenty pounds for subsequent offences.

The hours fixed may be as early as 1 p.m. on one day in the week, but on the remaining days shall not be earlier than 7 p.m. Closing Orders do not come into force until confirmed by the Secretary of State.

The County Council referred the consideration of Petitions under this Act to the Public Health Committee, and the following is a brief epitome of the work carried out :—

From the date the Act became operative to the end of December, 1906, 35 applications for Closing Orders from various classes of tradesmen had been received. As required by the Act and the Regulations made by the Secretary of State, steps were taken in each case to ascertain the opinions of the occupiers of all the shops which would be affected by the proposed Orders, and the signatures on the various Petitions were verified. This entailed visits to 891 shops in various parts of the County. Except in six instances the requisite two-thirds majority in favour of the proposed Orders was obtained. The terms of the various Orders were then determined upon, and the somewhat lengthy and expensive procedure, by way of advertising, &c., laid down by the Act for bringing the Orders into operation was carried

out. With a view to reducing expenditure in advertising, printing of posters, &c., several trades in different districts were, in many instances, grouped together in one Order.

A Register is kept, as required by the Regulations, showing the various shops affected, classified, and giving the names of the occupiers.

When the Orders made by the County Council have received confirmation by the Secretary of State and come into operation, the County Police, at the request of the Public Health Committee, kindly undertake to see that the provisions thereof are adhered to by the shopkeepers affected.

Midwives Act, 1902.—At the end of the year there were 1,073 midwives on the County Register with qualifications as follow :—

Obstetrical Society of London	...	...	...	73
Coombe Lying-in Hospital and Guinness's Dispensary	...	...	...	4
Rotunda Hospital, Dublin	...	...	...	1
Queen Charlotte's Lying-in Hospital	...	...	...	2
Liverpool Ladies' Charity and Lying-in Hospital	...	...	...	42
Manchester Southern and Maternity Hospital	...	...	...	17
St. Mary's Hospital, Manchester...	...	...	...	48
Dundee Maternity Hospital	...	...	...	1
Certificate (by Examination) of Central Midwives Board...	...	...	...	21
In <i>bonâ fide</i> practice, July, 1901	...	...	...	864
Total				1073

Of this number, 990 gave notice that they were practising as midwives within the County Area, and 83 intimated that they had temporarily ceased to act as midwives.

Under the Rules of the Central Midwives Board, Section E (18), the following notifications have been received :—

*Records of sending for medical help	...	...	875
Still-births.	...	...	482
Death of mother or child before the attendance			
of a medical practitioner	...	Mother 12 Child 66	78

*The notifications mostly refer to protracted labour or abnormal presentations.

From the increasing number of these notifications it is apparent that the midwives are now more clearly recognising their obligations in this respect.

The Central Midwives Board are kept acquainted with changes of name or address, or the deaths of midwives, so that the necessary alterations may be made in the Official Roll. The following changes have come under notice :—

Change of Address	...	...	...	172
Change of Name	...	...	...	1
Deaths of Midwives	...	...	...	19

There were 116 cases of puerperal fever notified as having occurred in the County, 52 of which proved fatal. Sixty-two of the cases, and 23 deaths, occurred in the practice of certified midwives, and in each case special investigations were made.

A number of charges of negligence or misconduct on the part of midwives were also enquired into, and in case of negligence the midwife was either reported to the Central Midwives Board or censured by the Midwives Act Committee of the County Council. Four midwives were removed from the Roll. For other offences, such as failure to obtain the required appliances or register of cases, residence of midwife not satisfactory in regard to cleanliness, &c., letters of caution have been sent to the offending midwives as suggested by the Committee.

Several district Medical Officers of Health testify to the good work being done under the Act. For instances:—Audenshaw: “Owing to the operation of the Act the midwives have greatly improved in their work.” Ince-in-Makerfield: “There is a good deal of improvement in the work of of midwives.” Little Hulton: Dr. J. H. Marsh reports “a marked improvement in the district midwives, both as regards personal cleanliness and general efficiency, and this is in a great measure due to the County Inspector’s supervision and instructions to them.” Rawtenstall (B): “There has been a marked improvement as regards the dresses and outfits carried by the midwives since the Act was put into operation.”

The revised Rules of the Central Midwives Board have been approved by the Privy Council, and will come into operation on the 24th April, 1907.

The County Inspector (Miss Wright) makes the following report:—

“The routine method of inspection adopted in 1905 has again been followed. The supervision has been carried out without friction, and it is pleasing to record that the standard of the midwives has slowly but steadily improved. About one-fifth of the midwives practising in this County are illiterate, and great difficulty is experienced in making them understand their responsibility and obligations.

“Almost the whole of the County midwives possess bags of appliances, and the majority now understand how to keep them in order. Registers in some instances are indifferently kept; in the case of illiterates accuracy in this respect can hardly be expected.

“A general improvement is noticeable in regard to the cleanliness of the midwives’ homes.

“Special stress has been laid on the importance of taking the patients’ temperature daily, as a raised temperature is often

the first sign of danger. I am afraid the value of this is not realised by a great number of the *bonâ fide* midwives. The need for careful washing of the eyes of the newly-born infants has also been specially impressed upon the women.

“As often as possible I have followed midwives to their cases to observe their mode of practice, but in so large an area this work is difficult to carry out. Many women may have no cases for a long period.

“Careful investigations have been made into the cases of puerperal fever occurring in the practice of midwives, and a number of charges of negligence or misconduct have formed the subject of enquiry.

“Formerly, a large number of County midwives undertook the work of laying out the dead, and although such work has been strictly prohibited, I have a suspicion that it has not entirely ceased.

“In conclusion I may say that, although some are careless and indifferent, the majority of midwives strive to the best of their ability to adapt themselves to the new conditions, and during the last two years a marked improvement has taken place.”

Owing to the large number of midwives in the Administrative County to be supervised and instructed, the Committee decided in October to engage an additional Inspector. Miss Ashton, who received the appointment, commenced duty on the 26th November, 1906.

The Feeding and Care of Infants.—In the early part of the year it was reported to the Midwives Committee that in some of the County districts the excessive infant mortality seemed to indicate that mothers and persons in charge of young children did not feed them properly, owing to lack of knowledge on the subject. It was, therefore, resolved that suggestions as to the feeding and care of infants be drawn up by the County Medical Officer of Health, and

made available for distribution on suitable occasions in the various County districts. This has been carried out, and assisted by the Midwives, whose help has been gladly given, over 70,000 of the printed instructions given below have been distributed.

1.—FEEDING AT THE BREAST.—The natural and best food for a baby is the milk of its mother, providing she is in good health, and it should be the *only food* for the first seven months of life: no other food is so nutritious and digestible, and it has the advantage of being free from all germs.

2.—An infant should with regularity be suckled slowly, once every two hours during the day, and once every four hours during the night, until it is three months old, and at gradually lengthening intervals after this period. If the mother has not enough milk to satisfy the baby, it may be given, in addition, modified cow's milk as described in Rule 5.

3.—The mother during her suckling period should lead a healthful life, and should take plenty of plain, good, nourishing food. Her drink at meals and when thirsty should be milk. Stimulants are not necessary, while spirits are harmful. The nipples should be kept dry and clean.

4.—WEANING.—A child, if in good health, should be weaned when about nine months old. Avoid weaning in the hot months of July, August, and September, as the change of food may produce diarrhœa.

5.—HAND FEEDING.—When the mother is unable to suckle her offspring the infant may be fed on fresh cow's milk, which has been raised to the boiling point,* and to which has been added water slightly sweetened, and a little cream. The proportion of milk, water, and cream should vary with the age of the infant:—

(a) For the first six weeks after birth the infant should be fed every two hours in the daytime and every

* The temperature may be sufficiently raised by placing the vessel containing the milk in a saucepan of boiling water kept on the fire for twenty minutes.

four hours at night on milk one part and two parts water, with a small tea-spoonful of white sugar and a table-spoonful of *fresh* cream to each pint of the mixture. Freshly prepared barley water† may sometimes, with advantage, be used instead of plain water, and if the child suffers from flatulence, or what is known as “wind on the stomach,” a little lime water may be added. The mixture should be kept in a clean covered vessel in a cool place between meals. From three to four table-spoonfuls of the mixture, slightly tepid, should be given at each meal, and the portion unconsumed should not be again used for the baby, as milk soon becomes sour and unfit for food. Two bottles should always be used, alternately, one being scalded and rinsed and afterwards left to soak in clean water while the other is in actual use. **Bottles must not have long tubes, as they cannot be kept clean.** The boat shaped bottle with an india-rubber teat which can be turned inside out and properly cleansed after use is the best.

(b) From six weeks to three months old the child should be fed with a mixture of equal parts of milk and water containing sugar and cream as above. Gradually increase the quantity given at each meal to eight table-spoonfuls at intervals extended to three hours.

(c) From three months to seven months old the child's food should consist of a mixture of two parts milk to one of water, and the quantity of cream may now be doubled; about ten table-spoonfuls should be given at each meal at intervals of three and a half hours.

(d) From seven to twelve months old the child should be given five meals a day, each meal consisting of 12 table-spoonfuls of undiluted milk, and occasionally a little rusk or some suitable infants' food may be heated with the milk.

† Barley water is made by boiling two dessert spoonfuls of well washed pearl barley in a pint of water. Boil to two-thirds and strain.

(*e*) A child from twelve to eighteen months need only be fed during the daytime, the feeding bottle being discarded: milk should continue to be given as mentioned in (*d*), supplemented with a little plain mutton broth, a few bread crumbs soaked in red gravy, milk pudding, meal porridge, bread and milk, and occasionally a little lightly boiled egg, or small pieces of bread and butter. After a child is eighteen months old a similar diet is appropriate, but the quantity should be increased.

6.—ALWAYS AVOID giving infants bread, arrowroot, potatoes, or other starchy food until they have attained the age of seven months. On no account give them alcoholic drink, tea, coffee, meat, fish, new bread, cheese, pickles, unripe fruit, or sweets. Soothing syrups and teething powders should never be given except under medical advice. Never use a “dummy teat,” as it is difficult to keep clean, and also injurious to the baby’s health.

7.—GENERAL HINTS ON MANAGEMENT.—Do not carry a baby in a sitting position until it is five months old, nor encourage it to walk unless the baby shows an inclination to do so of its own accord.

A baby should sleep in a cot alone, and never in the same bed with its parents. Give the baby plenty of fresh air, take it out daily—weather permitting—but remember that there is danger in the infant being out in the early morning and late in the evening.

8.—SECURE CLEANLINESS by washing the child in warm water morning and evening, taking care not to cause a chill by a draught when stripped for washing. Infants should be loosely but warmly clad in soft woollen material, not flannelette. They should be kept clean, and soiled napkins should be removed as soon as possible, and not used again until they have been washed. If a child should suffer from diarrhoea, or get “out of sorts,” consult a doctor without delay.

Sale of Food and Drugs Acts.—The following is the Annual Report of Dr. Campbell Brown, the Public Analyst for the Administrative County, on the proceedings taken under the Sale of Food and Drugs and Margarine Acts:—

“ During the year, 3,264 samples have been analysed, including 3,065 for the Police, 18 for special purposes for various officials of the County, and 181 by Inspectors for Local Authorities and Private Purchasers. Of these, 180 were found to be offences. They are classified as follows :—

1135	samples of Milk	.. ..	of which 109 were offences.
710	„ Butter	.. ..	15 „
28	„ Cheese	.. ..	1 was an offence.
29	„ Confectionery		
	and Jam	.. ..	1 „
46	„ Margarine	.. ..	13 were offences
170	„ Lard	.. ..	0 „
15	„ Tea	.. ..	0 „
147	„ Coffee	.. ..	2 „
154	„ Pepper	.. ..	0 „
4	„ Wine	.. ..	0 „
13	„ Beer	.. ..	0 „
599	„ Spirits	29 „
29	„ Drugs	4 „
185	Miscellaneous Samples	6 „
<hr/>			
3264	Samples analysed	180 „
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“ The proportion of offences to total samples is 5·5 per cent. A tabular statement of prosecutions in the respective divisions is appended.

“ Out of the 3,065 samples purchased by the County Inspectors, 167 were found to be offences, and the total number of prosecutions was 96 with 80 convictions. The penalties varied from 2s. 6d. to £10, and the average penalty was £1 18s. 4d.”

TABLE SHOWING THE ACTION TAKEN IN THE ADMINISTRATIVE COUNTY UNDER
SALE OF FOOD AND DRUGS ACTS DURING 1906.

Division.	Total Samples	No. of Offences	Per-centage of Offences	No. of Prosecu-tions.	No. of Con-victions.	RESULT OF PROSECUTIONS.
N.L.D.	86	...	...	3	2	No. 451, fined £5; 460, fined 10s. and costs; 485, dismissed because sample was not taken at place of delivery
S.L.D.	70	...	...	...	...
G.D.	64	...	...	3	1	No. 257, fined 2s. 6d. and costs; 194, costs only; 215, costs only ...
Km. D.	98	...	...	...	...
L.B.D.	132	...	...	3	2	No. 458, fined 5s. and costs; 449, costs only; 243, dismissed because case was not proven
H.B.D.	201	...	...	6	6	No. 887, fined £5; 862, fined 20s.; 906, fined 20s.; 845, fined 20s. (under Section 6), and 20s. for obstructing Officer; 925, fined 10s. and costs
Rs. D.	107	...	...	4	3	No. 334, fined £5; 378, fined £2; 376, fined 10s. and costs; 291, dis-missed on production of warranty
Ac.D.	113	...	...	...	...
L.D.	169	...	...	1	1	No. 195, fined 10s. and costs
Bn. D.	206	...	...	6	6	No. 639, fined £10; 760, fined £7 12s. 6d.; 744, fined 10s.; 711, fined 5s. and costs; 645 and 647, costs only. In the case of Margarine (No. 325), appealed last year, the conviction was confirmed, and £54 18s. 4d., appeal costs, paid in September, 1905
By. D.	184	...	...	6	6	No. 427, fined £10 (false warranty), and £5 (Section 6) and costs, and £2 for obstructing officer; 497, fined £5; 521, fined 20s. and costs: 538, costs only
R.D.	241	...	...	3	3	No. 877, fined £8; 846, fined £5 and costs; 798, costs only
A.D.	156	...	...	6	5	No. 732, fined £5; 835, fined 20s.; 728, fined 10s.; 841 and 855, fined 5s. 6d. and costs; 734, dismissed (able advocacy for defenec) ...
M.D.	430	...	...	10	6	No. 1049, fined £2; 987 and 988, fined 20s.; 847, 956, and 1017, fined 10s. and costs; 832, dismissed on proving warranty; 1066 and 1068, dismissed because adulteration was so slight; 995, with-drawn owing to error in labelling
S.D.	103	...	...	12	11	Nos. 468, 498, 500, and 505, fined £5; 464, fined £2; 560, fined 20s.: 491, 507, and 521, fined 10s.; 546 and 563, fined 5s. and costs: 519 dismissed
O.D.	106	...	...	5	3	No. 71, fined 20s.; 11, fined 10s. and costs; 17, costs only; two cases (Nos. 88 and 95) pending
P.D.	77	...	...	4	4	No. 924, fined £5; 922, fined £2; 858, fined 20s.; 916, fined 10s. and costs
Ws. D.	82	...	...	3	2	No. 669, fined £2; 610, fined 10s. and costs; 655, dismissed on account of defendant's poverty
W.D.	202	...	...	3	2	No. 1020, fined £3; 1086, fined 20s. and costs; 1005, dismissed (milk—said to be sold in same condition as brought from cow)
Wgn. D.	220	...	...	14	13	No. 899, fined £5; 698, 755, 756, 802, 884, and 885, fined £2; 736 and 808, fined 20s.; 848 and 863, fined 10s. and costs; 809 and 811, costs only; 853, dismissed—reason unknown
Inspector Parkinson..	18	...	...	4	4	No. 1758, fined 20s.; 1756, fined 5s.; 1747 (2 offences), fined 2s. 6d., and 2s. 6d. and costs
Total by County Officers	*3065	167	5.4	96	80	

* In addition, 18 samples were analysed at the request of County Council Officials, and 181 were sent by Inspectors for District Council Private Purchasers; total 3,264.

SUMMARY OF THE REPORTS

RECEIVED FROM

MEDICAL OFFICERS OF HEALTH

OF

URBAN AND RURAL DISTRICT COUNCILS

FOR THE YEAR 1906.

NOTE :—

The Zymotic Death-Rate for 1906 in the following Summaries includes *for the first time* the deaths of children *under one year of age* registered as due to Enteritis, Muco-enteritis, Gastro-enteritis, Gastritis, Gastro-intestinal Catarrh; therefore, to this extent, the rate is not comparable with that for 1905, or the 10 years 1896-1905. (Alteration made by Order of the Local Government Board on their Statistical Tables IV. and V.)

URBAN DISTRICTS.

Abram.—(Area in aeres, 1,984; Estimated Population, 7,169).—*Medical Officer of Health*, ANDREW O. BENTHAM, M.R.C.S.; *Salary*, £40.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	33·1	12·5	2·78	0·13	2·23	130
1905	34·1	14·6	1·90	0·43	3·22	163
Mean of 10 years						
1896-1905	41·5	21·7	4·09	0·97	5·12	206

Increase or Decrease

on—

<i>Previous Year</i>	—1·0	—2·1	+0·88	—0·30	—0·99	—33
<i>Ten Years' Average</i>	—8·4	—9·2	—1·31	—0·84	—2·89	—76

The general death-rate again declined and showed a marked decrease as compared with the 10 years' average. The zymotic rate is not so favourable as last year, but the other mortality averages are more satisfactory.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 15 (1 death), scarlet fever 23, enteric fever 10, erysipelas 15, continued fever 1. Non-notifiable diseases: measles 5 deaths, diarrhoea (including 1 death under one year from “enteritis”) 14 deaths. Diphtheria was present from March to December, more particularly in Abram Brow and Bamfurlong Wards. Anti-diphtheritic serum is supplied free of charge to medical practitioners on application. Scarlet fever had its greatest prevalence in February, Abram Brow Ward being the one most affected. Measles appeared in the district in epidemic form at two periods of the year. In January and February, this disease,

coupled with chicken-pox, caused so many cases in Bickershaw Ward, that it was thought advisable to close the schools, both infants and mixed departments. Again measles broke out in September, and continued to the end of the year in both Abram Brow and Bamfurlong Wards, 159 cases (as far as could be ascertained) occurring. School closure was once more resorted to. Diarrhœa was prevalent in August and September. Handbills were distributed from house to house, as were also copies of the circular on infant feeding issued by the County Council. Dr. Bentham reports, "in my annual report last year, I drew the Council's attention to the advisability of supplying the head teachers of the various schools with post cards, to be sent either to myself or the Sanitary Inspector, reporting on any case of infectious disease occurring amongst the scholars : this has not been done, and I would again respectfully call the attention of the Council to this matter, as to my mind, it is one of great importance in preventing the spread of infectious disease."

Hospital Accommodation. — The hospital for ordinary infectious cases has 8 beds, and an iron building—4 beds—is available for small-pox. Cases treated : scarlet fever 18, enteric fever 7. This district is included in a joint scheme for the provision of small-pox hospital accommodation.

Disinfection.—The steam apparatus (Manlove's) at the hospital was used for the disinfection of 329 articles. Fifty houses and 3 schools were fumigated with sulphur.

Water Supply.—Service reservoir at Stubshaw Cross supplied from the Liverpool Corporation mains.

Sewerage, Scavenging, &c.—"The sewage effluent has been satisfactory throughout the year," the samples taken by the Mersey and Irwell Joint Committee being classed as "good." Scavenging is carried out partly by the Authority and partly by contract.

Sanitary Inspection.—Two houses reported as unfit for human habitation were closed. Dairies and cowsheds are “fairly satisfactory” as regards cleanliness, air space, and lighting, and the water supply to several has recently been improved. Thirty-three inspections of factories and workshops resulted in 3 defects being discovered, and visits to 45 canal boats revealed 6 infringements of the Acts. Seventeen privies were converted to the water carriage system, and 3 to pail closets. The Inspector (Mr. Roby) served 164 notices, and as a result, 357 nuisances were abated.

Accrington (Borough).—(Area in acres, 3,427 ; Estimated Population, 45,000).—*Medical Officer of Health*, ARTHUR GREENHALGH, M.R.C.S., D.P.H. ; *Salary*, £100.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	21·6	13·3	1·73	0·91	1·84	132
1905	.....	20·7	13·4	0·62	0·67	2·21	137
Mean of 10 years							
1896-1905	.....	23·7	15·1	1·69	0·98	3·05	158

Increase or Decrease

on—

<i>Previous Year</i>	+0·9	−0·1	+1·11	+0·24	−0·37	−5
<i>Ten Years' Average</i>	−2·1	−1·8	+0·04	−0·07	−1·21	−26

The birth-rate continues exceptionally low, and the death-rate is the lowest ever experienced in the Borough. The infant mortality is well below the 10 years' average, but Dr. Greenhalgh remarks “it yet remains the most serious blot on our record of mortality statistics.” About one-fifth of the total deaths under the age of one year occur during the first week of life, and nearly one-third during the first month. The Medical Officer reports “the 31 deaths

in the group of diarrhœal diseases I look upon as to a great extent preventable. The indisposition of many mothers to feed their infants at the breast, coupled with the very prevalent use of the iniquitous long tube feeding bottle, is, I believe, the cause of many of the deaths included in this group." Cards giving advice on feeding and general care of infants have been placed in the hands of doctors, midwives, and district nurses for suitable distribution.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 52 (10 deaths), scarlet fever 82 (4 deaths), enteric fever 20 (6 deaths), erysipelas 48 (1 death), puerperal fever 3 (2 deaths). Non-notifiable diseases: measles 13 deaths, whooping cough 12 deaths, diarrhœa (including 13 deaths under one year from "enteritis") 33 deaths. Diphtheria was much more prevalent than usual, and the deaths were above the average. Anti-diphtheritic serum is now supplied free of charge in necessitous cases. "Hospital isolation of scarlet fever is not practised in the Borough, isolation at home is advised, and an assistant visits the houses notified, and conveys printed instructions." Attention is again drawn to the excessive case mortality of enteric fever (30 per cent.). During the last six years over 25 per cent. of the enteric fever cases have terminated fatally. This disease, writes Dr. Greenhalgh, "cannot be treated as it ought to be in the majority of households, and until hospital provision is made this high mortality is likely to remain." Measles, whooping cough, and diarrhœa were much more prevalent than in the preceding year; school closure was resorted to with a view to preventing the further spread of the first-mentioned disease. Several children were found at school whilst suffering from measles, and Dr. Greenhalgh advises the local Education Committee to take into consideration the question of medical inspection of schools and school children. "From my observations," he says, "I am able to say that many of the schools are not kept in that state of cleanliness

and general good hygiene which is needful in places where large numbers of children are assembled." Arrangements have been made for the voluntary notification of phthisis, but these are not acted upon satisfactorily.

Hospital Accommodation.—The only provision is for small-pox—24 beds.

Disinfection.—Goddard, Massey, & Warner's steam apparatus at the depôt was used for the disinfection of 1,475 articles, and 356 articles of clothing, &c., were destroyed. Houses fumigated with sulphur or formalin 205.

Water Supply obtained from the Accrington and District Water Board's reservoirs at Dean Clough, Huncoat, and Mitchell's. The water from the latter reservoir is now passed through filter beds, and rendered free from the slight discolouration formerly prevalent owing to the peaty nature of the gathering ground.

Sewerage, Scavenging, &c.—The joint outfall works at Coppy Clough consist of open septic tanks, sprinkler filters, and small sedimentation tanks. Experiments by the Royal Commission on Sewage Disposal are still being carried out. Sewers are being extended in the Baxenden district. Scavenging is performed satisfactorily by the Authority. The refuse destructors have been reconstructed and brought up-to-date.

Sanitary Inspection.—There is very little slum property in the Borough, yet quite a number of the old houses have serious sanitary defects. "A more regular and systematic inspection" of house property is needed. The public abattoirs and markets were frequently visited, and as a result a large quantity of unsound food was condemned and destroyed. Two fish dealers were convicted for exposing for sale a quantity of unwholesome fish. The large model lodging house is well conducted, but the others are not so satisfactory. Improvements have been made at some of the cowsheds which

had not hitherto conformed to the Regulations. Factories and workshops underwent 187 inspections. One hundred and fifty-seven pail closets were converted to the water carriage system. A local Act has been obtained giving power to compel such conversions. The Inspector (Mr. Diggle) reports the abatement of 695 nuisances after the service of 346 notices. Nineteen smoke observations were taken.

Adlington.—(Area in acres, 1,062; Estimated Population, 4,762).—*Medical Officer of Health*, F. J. A. MAYES, M.R.C.S.; *Salary*, £40.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	25·1	13·8	2·30	0·83	2·72	141
1905	.....	26·7	8·7	0·84	0·42	0·42	79
Mean of 10 years							
1896-1905	.....	29·0	13·2	1·54	0·44	2·45	131

Increase or Decrease

on—

<i>Previous Year</i>	−1·6	+5·1	+1·46	+0·41	+2·30	+62
<i>Ten Years' Average</i> .	−3·9	+0·6	+0·76	+0·39	+0·27	+10

“The vital statistics are not of so satisfactory a character as were those of 1905, but that year was in many ways an exceedingly exceptional period.”

Infectious Diseases.—Cases notified: diphtheria and membranous croup 16 (6 deaths), scarlet fever 1, enteric fever 2 (1 death), erysipelas 9, and continued fever 1. Non-notifiable diseases: diarrhœa (including 1 death under one year from “enteritis”) 4. No satisfactory cause could be found to account for the outbreak of diphtheria which occurred during the middle of the third quarter. Anti-toxin was freely used.

Hospital Accommodation.—The joint hospital (Chorley, &c.), at Heath Charnock was used for the isolation of 7 patients, viz., diphtheria 4 (1 death), enteric fever 2 (1 death), and scarlet fever 1.

Disinfection.—No apparatus.

Water Supply—obtained from Blackrod—has at times not been of the best quality, and it is suggested that a close watch be kept on the condition of the water mains.

Sewerage, Scavenging, &c.—Sewage is treated by precipitation, filtration, and irrigation. The Authority undertake scavenging. The very noxious custom of emptying privy middens into the middle of the thoroughfare at all hours of the day still exists. Many bye lanes and streets are badly paved and practically undrained.

Sanitary Inspection.—Bakehouses, slaughter-houses, and dairies and cowsheds are, on the whole, in good condition, but some of the farms are badly in want of a good water supply. The Inspector served 78 notices for the abatement of nuisances.

Allerton. — (Area in acres, 1,589; Census Population, 1,101).—*Medical Officer of Health*, C. STUART PETHICK, M.B.; *Salary*, £20.

Vital Statistics.

PER 1,000 OF POPULATION.

	Birth- rate.	Death- rate,	Zymotic Death- rate.	Phthisis Death- rate.	Respira- tory Death- rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	24.5	5.4	0.90	nil.	1.81	37
1905	22.7	7.2	0.90	nil.	0.90	40
Mean of 10 years						
1896-1905	21.7	9.1	0.65	0.20	1.34	76
<i>Increase or Decrease</i> <i>on—</i>						
<i>Previous Year</i>	+1.8	—1.8	..	..	+0.91	—3
<i>Ten Years' Average.</i>	+2.8	—3.7	+0.25	—0.20	+0.47	—39

Only 6 deaths were registered in the district, the death-

rate being below any previously recorded, except in 1891 and 1902 when it was exactly the same.

Infectious Diseases.—Cases notified: diphtheria 1, scarlet fever 9. Non-notifiable diseases: diarrhoea 1 death. All the scarlet fever cases were amongst children attending schools outside the district.

Hospital Accommodation.—Two beds are reserved at the Whiston hospital for the use of this district. Five cases (scarlet fever) were removed.

Disinfection.—Fraser's dry heat appliances are provided at the Council's depôt. Five houses were fumigated with sulphur after the occurrence of illness of an infectious character.

Water Supply, of good quality, obtained from the Liverpool Corporation.

Sewerage, Scavenging, &c.—The sewers are connected to the Liverpool mains at Garston which empty into the River Mersey, and scavenging is carried out in a satisfactory manner by the Authority.

Sanitary Inspection.—One hundred and ninety houses, &c., were inspected, but only 4 notices were required for sanitary amendments. Bakehouses, do not call for special comment. Dairy and cowshed regulations are not in force. The following sanitary improvements have been effected during the year:—

House drains repaired, cleaned, &c. . .	3
Privies and water closets repaired, &c. .	8
Dust bins covered, &c.	2
Waste water pipes connected with drains, &c.	3
Water cisterns cleansed, repaired, &c. . .	4

Ashton-in-Makerfield.—(Area in acres, 6,251; Estimated Population, 20,866).—*Medical Officer of Health*, NATHAN HANNAH, L.R.C.P.E.; *Salary*, £80.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	31·8	14·8	3·30	0·91	2·73	159
1905	.....	34·0	14·3	2·33	0·53	2·29	154
Mean of 10 years							
1896-1905	.....	40·0	17·9	3·23	0·76	3·41	173
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	.....	—2·2	+0·5	+0·97	+0·38	+0·44	+5
<i>Ten Years' Average</i>	.....	—8·2	—3·1	+0·07	+0·15	—0·68	—14

The birth-rate, which varied from 35·8 in East Ward to 27·1 in North Ward, is lower than any previously recorded, and the general death-rate, although slightly higher than in the last two years, is well below the average. East Ward had the highest death-rate (17·9), and South Ward the lowest (8·7). The zymotic rate is not satisfactory, diarrhœa again being the chief factor in upholding this rate.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 100 (9 deaths), scarlet fever 115 (2 deaths), enteric fever 21 (6 deaths), erysipelas 24, puerperal fever 3 (1 death), continued fever 1. Non-notifiable diseases: measles 6 deaths, whooping cough 9 deaths, diarrhœa (including 7 deaths under one year from “enteritis”) 37 deaths. Diphtheria, which cropped up here and there in widely different localities, had its greatest incidence in June, July, and August. The serum treatment had a most marked effect on the severity of the attack. Insanitary surroundings were observed at 20 of the houses where this disease occurred. Scarlet fever—mild in type—continues endemic in character.

Indiscriminate visiting, in spite of warning handbills left at each house, is one of the chief causes in its dissemination. Measles was extensively prevalent during the last quarter, several schools being closed. Dr. Hannah doubts whether school closure is of much practical benefit in checking the spread of this disease. Anticipating the usual diarrhœa sickness in the hot months, leaflets, &c., were early distributed, but no benefit therefrom was apparent. "The 'educating' of parents with regard to indiscretions in dietary would avail much, as year in and year out one constantly sees the necessity of enlightenment both from an economic as well as a health point of view." A scheme for the notification of phthisis was initiated during the last quarter of the year.

Hospital Accommodation.—The new hospital was opened in the summer, and the old buildings were remodelled internally. Thirty beds are now available, and in addition a small hospital is provided at Edge Green for small-pox. Cases treated: diphtheria 29 (3 deaths), scarlet fever 55 (2 deaths), enteric fever 11 (3 deaths). This district is combined, under an Order of the County Council, with neighbouring Authorities for the provision of a joint small-pox hospital.

Disinfection.—Goddard & Co.'s steam apparatus at the hospital was used for the disinfection of 85 beds and 608 articles of clothing, &c. Houses fumigated, 240.

Water Supply for the greater part of the district obtained from the Liverpool Corporation.

Sewerage, Scavenging, &c.—Sewage is treated at six outfall works, viz.. Garswood (Victoria Road), Downall Green (Lowe Bank), and Edge Green (No. 1) on the bacterial system; Brynm Gates by bacteria beds and broad irrigation; and at Pewfall and Edge Green (No. 2) by broad irrigation. Scavenging, described as "very fair," is carried out by the Authority. The question of providing a refuse destructor will, before long, have to be considered.

Sanitary Inspection. — Several blocks of property reported as unfit for human habitation have been dealt with during the year, 32 houses were condemned, 6 closed, 17 demolished, and 12 made habitable. In addition many have been put in a proper state of repair. Dairies and cowsheds are in a better condition than formerly. New regulations are at present under consideration. As the result of 119 inspections a few minor defects in factories and workshops were rectified. The Inspector (Mr. Gamble) reports the abatement of 311 nuisances following on the service of 314 notices.

Ashton-under-Lyne (Borough).—(Area in acres, 1,346 ; Estimated Population, 45,161). — *Medical Officer of Health*, JOHN W. TALENT, M.D. ; *Salary*, £80.

Vital Statistics.

PER 1,000 OF POPULATION.							Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.		
1906	26·5	17·4	2·05	1·48	3·63	152	
1905	26·3	18·4	1·80	1·38	3·94	179	
Mean of 10 years							
1896-1905	26·8	19·6	2·06	1·58	3·90	186	

Increase or Decrease

on—

<i>Previous Year</i>	+0·2	−1·0	+0·25	+0·10	−0·31	−27
<i>Ten Years' Average</i> ..	−0·3	−2·2	−0·01	−0·10	−0·27	−34

The birth-rate which remains practically stationary, varied from 30·3 in Portland Ward to 19·1 in St. Michael's Ward. The general death-rate, with one exception, is the lowest recorded for the Borough, and the same remark applies to the infantile mortality. The latter rate in Portland Place Ward equalled 203 per 1,000 births and in St. Michael's Ward 120. The municipal sterilized milk depôt has been carried

on with increased success, and the Ladies' Health Society continues its good work.

Infectious Diseases.—Cases notified : small-pox 119, diphtheria and membranous croup 10, scarlet fever 97 (2 deaths), enteric fever 19 (4 deaths), erysipelas 27, puerperal fever 4, and continued fever 1. Non-notifiable diseases : measles 14 deaths, diarrhoea (including 10 deaths under one year from “ enteritis ”) 73 deaths. Small-pox has been more or less prevalent in this district since the early months of 1902. Measles prevailed in severe epidemic form during the months of November and December, and necessitated the closing of all the schools for the Christmas holidays a week earlier than usual. The epidemic, though so widespread, was mild in character. In its wake followed whooping cough, but no fatality was due to this disease. The voluntary notification of phthisis is in operation.

Hospital Accommodation.—The Borough hospital has 16 beds, and the joint small-pox hospital at Hartshead 12 beds. Only small pox cases—119 in number—were removed, both hospitals being used for their treatment.

Disinfection.—A “ Thresh ” disinfector is provided at one of the hospitals, and Mason's dry and moist ovens at the other. Rooms fumigated with sulphur or formalin numbered 953.

Water Supply good, obtained from the joint waterworks.

Sewerage, Scavenging, &c.—Sewage undergoes treatment by preeipitation and filtration, and scavenging, under the supervision of the Chief Inspector, is carried out in a satisfactory manner. A refuse destructor is in operation.

Sanitary Inspection.— Bakehouses, common lodging-houses, houses let in lodgings, and living vans, have been frequently inspected, no special cause of complaint arising.

Slaughter-houses have had careful attention; "they are kept clean, and in as good condition as it is possible, but at the best they are very much inferior to a public abattoir." Dairies, cowsheds, and milkshops are kept under constant supervision; in many cases attention has been called to the careless way in which many of the latter expose the milk to the danger of contamination. Factories and workshops, to which 139 visits were paid, appear to comply with the requirements of the Act. The Inspector (Mr. Morris) gives details of the sanitary work accomplished which included notices served 389, nuisances abated 1,041, privies converted to the water carriage system 268, smoke observations 330, &c. Legal proceedings were instituted in 3 instances, 2 for smoke nuisance.

Aspull. — (Area in acres, 1,906; Census Population, 8,388).—*Medical Officer of Health*, L. COOKE, L.R.C.P.; *Salary*. £35.

Vital Statistics.

PER 1,000 OF POPULATION.

	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	34·8	15·8	2·26	0·35	4·53	113
1905	34·7	18·3	3·46	0·47	3·10	209
Mean of 10 years						
1896-1905	35·7	19·2	3·29	0·70	4·63	170

Increase or Decrease

on—

<i>Previous Year</i>	+0·1	−2·5	−1·20	−0·12	+1·43	−96
<i>Ten Years' Average</i>	−0·9	−3·4	−1·03	−0·35	−0·10	−57

With the exception of the respiratory rate the mortality averages compare very favourably with the preceding year. The infantile death-rate is the lowest ever recorded. The birth-rate remains well above the County average.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 10 (2 deaths), scarlet fever 107 (1 death), enteric fever 15 (3 deaths), erysipelas 11, puerperal fever 2 (1 death). Non-notifiable diseases : measles 6 deaths, diarrhoea 7 deaths. Scarlet fever, in August and September, was somewhat prevalent in Top Lock and New Springs districts, but it was of a very mild type. The enteric fever cases were scattered over the entire district. In February, an outbreak of measles occurred amongst the children attending one of the schools, which was promptly closed. The action taken had a marked influence in checking the progress of the disease.

Hospital Accommodation is available at Wigan. Cases treated : scarlet fever 4, enteric fever 7 (2 deaths). Aspull is associated with many of the adjoining districts for the purpose of erecting a small-pox hospital.

Disinfection.—Infected clothing, &c., sent to Wigan. Sixty-two houses were fumigated.

Water Supply for the greater portion of the district is obtained from Bolton. The higher part of the district is not satisfactorily supplied.

Sewerage, Scavenging, &c.—The sewers are connected to the Wigan Corporation mains. Scavenging, as performed by contract, gives satisfaction.

Sanitary Inspection.—Several insanitary houses were condemned, but the requirements demanded by the Council have been complied with. Many back yards have been paved, but there are still some requiring attention. Dairies and cowsheds, with one exception, are in good condition. Thirty-eight inspections of factories and workshops revealed 4 defects. The Inspector (Mr. Gibson) served 129 notices for nuisance abatement.

Atherton.—(Area in acres, 2,265 ; Estimated Population, 18,400).—*Medical Officer of Health*, JAMES MARSH, M.B.; *Salary*, £60.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	30·8	14·6	3·15	0·97	2·28	165
1905	30·9	13·7	2·38	0·55	2·11	141
Mean of 10 years						
1896-1905	34·9	17·9	3·72	1·02	3·70	176

Increase or Decrease

on—

<i>Previous Year</i>	−0·1	+0·9	+0·77	+0·42	+0·17	+24
<i>Ten Years' Average</i>	−4·1	−3·3	−0·57	−0·05	−1·42	−11

The lowest birth-rate yet recorded for the district is accompanied by a death-rate more favourable than in any preceding year except 1905. The zymotic, phthisis, respiratory, and infant rates are higher than last year, although below the average of the decennial period 1896-1905. A lady Sanitary Inspector was appointed in September, mainly with a view to instruction being given as to the care and feeding of young infants.

Infectious Diseases.—Cases notified : diphtheria 13 (1 death), scarlet fever 101, enteric fever 11 (3 deaths), erysipelas 24, puerperal fever 2 (1 death). Non-notifiable diseases : measles 17 deaths, whooping cough 3 deaths, and diarrhoea (including 6 deaths under one year from “enteritis”) 34 deaths. One of the most satisfactory features of the year has been the diminution in enteric fever, only 11 cases being notified against 17, 29, 63, and 42 in the four preceding years. Scarlet fever, however, had an increased prevalence, but it was of a very mild type. Amongst other measures adopted to stay the spread of this disease, school closure was resorted to. Arrangements for the voluntary notification of phthisis were made, but “without result.”

Hospital Accommodation for all diseases is provided at the Leigh, &c., joint sanatorium at Astley. Cases treated : scarlet fever 37, enteric fever 4.

Disinfection.—Mason's steam apparatus provided at the gas works. Houses are fumigated with sulphur or formalin.

Water Supply obtained partly from Manchester and partly from Bolton.

Sewerage, Scavenging, &c.—Sewage is treated at the Leigh and Atherton joint outfall works. On two occasions—March and June—the Mersey and Irwell Joint Committee complained of unsatisfactory effluents. The Authority undertake scavenging. A refuse destructor is provided.

Sanitary Inspection.—Bakehouses and slaughter-houses are satisfactory, and dairies and cowsheds “fair.” Factories and workshops received 90 visits ; only 1 defect was noted. The Inspector secured the abatement of 368 nuisances.

Audenshaw.—(Area in acres, 1,241 ; Estimated Population, 7,605).—*Medical Officer of Health*, F. W. ALLKIN, M.B. ; *Salary*, £20 (no claim).

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	24·1	14·2	1·70	1·31	2·89	114
1905	.....	24·1	17·0	1·98	0·79	3·44	170
Mean of 10 years							
1896-1905	.....	26·0	15·3	1·81	0·88	2·82	149
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	..... ..	—2·8	—0·28	+0·52	—0·55	—56	
<i>Ten Years' Average</i>	—1·9	—1·1	—0·11	+0·43	+0·07	—35	

Excepting the phthisis rate the mortality averages are

more favourable than those of the previous year, the infant rate being the lowest recorded during the last 10 years.

Infectious Diseases.—Cases notified : small-pox 3, diphtheria and membranous croup 4 (1 death), scarlet fever 60 (4 deaths), enteric fever 4 (1 death), erysipelas 2. Non-notifiable diseases : diarrhœa (including 1 death under one year from “ enteritis ”) 7 deaths. Two of the persons attacked with small-pox worked in Ashton-under-Lyne (B.) where the disease was existent, and no doubt became infected there, and the third patient had frequently visited the Borough prior to being attacked. More than half the scarlet fever cases occurred in the Hooley Hill district during the first six months of the year, the remaining attacks taking place in the Audenshaw Road and Droylsden Road districts during the latter part of the year. The district was free from measles, whooping cough, and puerperal fever. Owing to the operation of the Midwives Act, 1902, the midwives have “ greatly improved in their work.”

Hospital Accommodation.—Two beds are retained at the Hyde Corporation hospital for the use of this district, and provision is made for small-pox at the Ashton, &c., joint small-pox hospital at Hartshead. Cases treated : small-pox 3, scarlet fever 2.

Disinfection.—No apparatus. The Medical Officer of Health urges his Council to provide an efficient steam disinfecter, being of opinion that such apparatus would be of great service in preventing the spread of disease. Houses fumigated with sulphur or formalin 56.

Water Supply is “ derived from the joint waterworks at Swineshaw Valley, and is chiefly spring and stream water.”

Sewerage, Scavenging, &c.—Sewage is treated at the

Dukinfield and Stalybridge joint sewage works. The treatment chiefly consists in precipitation with lime and aluminoferric, and subsequent filtration in tanks. The Mersey and Irwell Joint Committee have not been satisfied with the character of the effluent from the outfall works, and legal proceedings against the Joint Board are contemplated. The sewers are periodically flushed and cleansed, but many of the old mains are in a very defective condition, the gradient being insufficient to ensure a self-cleansing velocity. The work of scavenging is efficiently carried out by the contractor.

Sanitary Inspection.—In September an Inspector of the Local Government Board made a minute house-to-house inspection of the district, but the official report is not yet to hand. Two insanitary houses were demolished and 6 made habitable. Slaughter-house bye-laws have been adopted, and the existing buildings will now have to be altered to comply with the requirements. Dairies and cowsheds, with few exceptions, are satisfactory; the adoption of regulations is under consideration. Extensive alterations have been carried out during the year at the factories and workshops, and these places are now in a fairly satisfactory state; 156 inspections were made. The Council have approached the Local Government Board and are endeavouring to obtain powers to contribute to the owners of property £3 per closet converted to the water carriage system; this arrangement to apply to any conversions completed since September 27th, 1906. It is estimated that £3,645 will be required to meet these contributions. During the year 117 conversions took place. In one instance legal proceedings were instituted to compel the substitution of water closets in lieu of the existing insanitary wet privies. An order was granted for the necessary work to be carried out. The Inspector (Mr. Drew) secured the abatement of 111 nuisances as the result of the service of 108 notices. Several smoke observations were taken.

Bacup (Borough).—(Area in acres, 6,120 ; Estimated Population, 24,400).—*Medical Officer of Health*, JOHN BROWN, M.D., D.P.H. ; *Salary*, £100.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	21·4	15·2	1·63	0·65	3·40	120
1905	.....	22·3	14·6	0·44	1·02	2·84	111
Mean of 10 years							
1896-1905	.....	23·4	17·5	1·51	0·98	3·90	152
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>		−0·9	+0·6	+1·19	−0·37	+0·56	+9
<i>Ten Years' Average</i>		−2·0	−2·3	+0·12	−0·33	−0·50	−32

The birth-rate is the lowest ever recorded for the Borough, and, excepting 1905, the same remark applies to the general death-rate. The zymotic rate is nearly four times greater than that of last year, the increase being almost entirely due to the severe epidemic of measles. The rise in the infantile mortality is attributed to the same cause. Dr. Brown strongly urges the formation of a “Maternity and Health Guild,” whose great aim would be to educate and train young mothers in the duties and responsibilities of motherhood, and the principles of infant feeding and hygiene.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 18 (8 deaths), scarlet fever 42, enteric fever 15 (1 death), erysipelas 22, puerperal fever 3, chicken-pox (notifiable since July, 1903) 34. Non-notifiable diseases : measles 20 deaths (last year, none), diarrhoea (including 2 deaths under one year from “enteritis”) 11 deaths. Diphtheria was more prevalent than usual, and the Health Committee, acting on the Medical Officer’s recommendation, provided a free supply of anti-toxin, and this has already proved

of much value. The scarlet fever cases occurred mostly in the early part of the year, but the disease was of a mild type. It is over 20 years since there were no deaths due to this cause in any one year. Nine of the enteric fever cases could be traced to polluted water—a private supply liable to pollution from surface washings from a field. A new supply of water was obtained. Measles had a wide spread, and necessitated school closure.

Hospital Accommodation.—The only hospital provision is for small-pox at Sourhall (Todmorden). The question of providing a joint infectious disease hospital for the three Rossendale Boroughs has been under consideration. “but nothing practical has yet been done.”

Disinfection.—No proper appliances. One hundred and thirty-one rooms, including 16 schools, were fumigated with sulphur or formaldehyde gas.

Water Supply.—Corporation water, collected from the moors and filtered, is supplied to rather more than half the population. The remainder supplied from private sources. Some of these are liable to pollution by surface washings from manured fields. Several cases of lead poisoning occurred, one having a fatal termination. When the new water scheme is completed many of the suspicious supplies will be stopped.

Sewerage, Scavenging, &c.—Sewage undergoes treatment at the Haslingden, Rawtenstall, and Bacup joint outfall works. The Mersey and Irwell Joint Committee on several occasions drew attention to unsatisfactory effluents. Additional filter beds, &c., are now being constructed. The bulk of the scavenging is performed by the Council's employees, and gives much more satisfaction than when done by contractors. Some of the outlying parts are still scavenged by contract.

Sanitary Inspection.—The house accommodation is not sufficient for the needs of the district, owing to new industries. Nearly all the old houses, many of which have been empty for years, are now occupied. Some of the slaughter-houses are in congested areas, and structurally not suited for their purpose, otherwise the premises are kept clean. Common lodging-houses, and dairies and cowsheds—not subject to regulations—are still inspected by the police. Factories and workshops received 188 inspections, and frequent visits were paid to the premises where offensive trades are carried on. A few privies and pail closets were converted to the water carriage system, and it is hoped that when the new water scheme is ready, conversions will freely take place. The Inspector (Mr. Barnes) gives details of the work carried out in his department: 608 nuisances were remedied, 462 notices issued, 7 smoke observations, &c.

Barrowford.—(Area in acres, 1,385; Estimated Population, 5,500).—*Medical Officer of Health*, F. E. DE BEEHO PIM, L.R.C.P.I.; *Salary*, £20.

Vital Statistics.

PER 1,000 OF POPULATION.

	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	22·0	14·1	1·27	0·90	3·09	181
1905	20·9	13·4	1·81	0·54	2·18	95
Mean of 10 years						
1896-1905	24·3	13·4	1·68	0·74	2·74	137

Increase or Decrease

on—

<i>Previous Year</i>	+1·1	+0·7	−0·54	+0·36	+0·91	+86
<i>Ten Years' Average</i> .—	2·3	+0·7	−0·41	+0·16	+0·35	+44

The most marked feature of the mortality statistics is the rise in the infant death-rate which is the highest recorded

for many years. The excess is due partly to the fact that 7 deaths occurred in prematurely-born children, and that the four illegitimate children born all died before they attained the age of one year.

Infectious Diseases.—Cases notified : diphtheria 2 (1 death), scarlet fever 5, erysipelas 5. Non-notifiable diseases : measles 2 deaths, diarrhœa 4 deaths. The number of cases notified is the lowest since 1897.

Hospital Accommodation.—Cases of small-pox can, by arrangement, be removed to the Nelson Corporation hospital, but no provision is available for other infectious diseases.

Disinfection.—I repeat the comment made in 1905. “ For some years the Medical Officer of Health has urged the Council to procure apparatus for the disinfection of infected bedding, clothing, &c., but, apparently, no notice is taken of his recommendation.”

Water Supply good and plentiful, taken from the reservoirs belonging to the Nelson Corporation.

Sewerage, Scavenging, &c.—Sewage is treated by continuous preeipitation and irrigation. Plans and estimates for alterations at the outfall works and for sewer extensions have been forwarded to the Local Government Board. The Authority undertake scavenging. Attention is again drawn to the bad condition of certain streets.

Sanitary Inspection.—The dairies are well kept, and the cowsheds clean, but most of the latter are short of air space, light, and ventilation. Dairy and cowshed regulations are not in force. “ Vast improvements ” have been made in the closet accommodation at some of the factories and workshops, but more attention is required as regards ventilation. Only 4 notices were required for nuisance abatement. Seven smoke observations were taken.

Billinge.—(Area in acres, 4,596; Estimated Population, 4,500).—*Medical Officer of Health*, RICHARD O. MATHER, M.B. ; *Salary*, £30.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	27·7	14·0	2·22	0·88	2·88	104
1905	31·3	13·1	0·88	0·22	2·88	113
Mean of 10 years						
1896-1905	30·9	16·8	1·70	0·88	3·26	164

Increase or Decrease

on—

<i>Previous Year</i>	—3·6	+0·9	+1·34	+0·66	..	—9
<i>Ten Years' Average</i> ..	—3·2	—2·8	+0·52	..	—0·38	—60

The birth-rate shows an appreciable decrease on the previous year, and the death-rate is fractionally higher. The zymotic rate is also less favourable.

Infectious Diseases.—Cases notified : diphtheria 7 (4 deaths). scarlet fever 9, enteric fever 3 (2 deaths). erysipelas 1. Non-notifiable diseases : diarrhoea 4 deaths (all under one year from “enteritis”). The Council decided, on the recommendation of Dr. Mather, to provide a supply of anti-diphtheritic serum. Several of the diphtheria and enteric fever cases were due to insanitary conditions. In December an epidemic of measles occurred in Billinge-Chapel-End, and in consequence certain schools were closed.

Hospital Accommodation.—An isolated cottage at Brownlow—with 4 beds—is reserved for small-pox. This district is combined under an Order of the County Council with neighbouring Authorities, for the purpose of providing a small-pox hospital.

Disinfection.—No apparatus. Houses are fumigated with sulphur.

Water Supply obtained from old quarry workings. The construction of a storage reservoir is under consideration.

Sewerage, Scavenging, &c. — Sewage is treated by continuous settlement and irrigation. The sewers are periodically flushed, and better means of ventilation provided. Scavenging is satisfactorily carried out by the Council's workmen.

Sanitary Inspection. — Some unsatisfactory property exists at Chapel-End, difficulty being experienced in getting the owners to respond to notices calling for sanitary amendments. Dairies and cowsheds are clean and in good order, and the slaughter-houses comply with the bye-laws. The service of 25 notices secured the abatement of 22 nuisances.

Birkdale.—(Area in acres, 4,316 : Estimated Population, 19,000). — *Medical Officer of Health*, A. V. WHEELER, L.R.C.P.E. : *Salary*, £85.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	19.2	12.2	1.05	1.15	1.68	139
1905	18.5	12.9	0.16	0.55	1.94	123
Mean of 10 years						
1896-1905	21.0	14.1	0.77	0.94	2.12	139

Increase or Decrease

on—

<i>Previous Year</i>	+0.7	-0.7	+0.89	+0.60	-0.26	+16
<i>Ten Years' Average</i> ..	-1.8	-1.9	+0.28	+0.21	-0.44	..

As compared with last year, the death-rate shows a fractional decrease, but the zymotic, phthisis, and infant rates are not quite so satisfactory.

Infectious Diseases.—Cases notified : diphtheria 6 (2 deaths), scarlet fever 29 (1 death), enteric fever 3, erysipelas 9.

Non-notifiable diseases : measles 4 deaths, whooping cough 5 deaths, diarrhœa (including 5 deaths under one year from " enteritis ") 8 deaths. Scarlet fever was most in evidence during the early part of the year, whilst measles had its greatest prevalence just before Christmas, and necessitated closure of the schools two weeks before the usual holiday commenced. This action served to stay the spread of the disease. Nearly all the deaths attributed to diarrhœa occurred amongst children under the age of six months. Lack of proper attention through ignorance, and artificial feeding, are the main factors in the causation of this disease. The appointment of a maternity nurse to instruct mothers in the art of feeding and care of infants is strongly recommended.

Hospital Accommodation.—The hospital, situate off Shaftesbury Road, has 18 beds in two blocks. Cases treated : diphtheria 1, scarlet fever 14.

Disinfection.—Steam apparatus provided. Houses fumigated with sulphur.

Water Supply good and plentiful, obtained from the Southport and Birkdale Joint Water Board.

Sewerage, Scavenging, &c.—Sewage treatment consists of precipitation, filtration, and irrigation. Dr. Wheeler reports that he hopes very shortly to see the sewage scheme for Ainsdale completed. The drains of the public elementary schools were flushed and disinfected during the holiday periods by the Council's workmen. Scavenging is performed by the Authority in a satisfactory manner. The necessity of a refuse destructor is becoming apparent.

Sanitary Inspection.—Four insanitary houses were made habitable, and attention was directed to four cases of overcrowding. Cowsheds are subject to inspection by a veterinary surgeon. The slaughter-houses are fairly well kept, but a public

abattoir would be an improvement. Factories and workshops were regularly inspected, with special reference to their sanitary condition, ventilation, and general cleanliness. The pig-keeping nuisance has not yet entirely disappeared. Offensive privies in connection with 35 dwellings were abolished, and modern water closets or slop water closets fixed in lieu thereof. Mr. Jump, the Inspector, secured the abatement of 201 nuisances. Six smoke observations were taken.

Bispham-with-Norbreck.—(Area in acres, 1,346; Estimated Population, 1,602). — *Medical Officer of Health*, JAMES JOHNSON, L.F.P.S.G.; *Salary*, £20.

Vital Statistics.

PER 1,000 OF POPULATION.							
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.	
1906	17·4	19·3	0·62	0·62	1·24	107	
1905	26·9	17·0	nil.	0·65	nil.	48	
Mean of 3 years							
1903-1905	22·4	13·2	0·56	0·68	0·79	139	

Increase or Decrease

on—

<i>Previous Year</i>	—9·5	+2·3	+0·62	—0·03	+1·24	+59	
<i>Three Years' Average</i>	—5·0	+6·1	+0·06	—0·06	+0·45	—32	

The low birth-rate is mainly accounted for by the number of residents who are beyond middle age. The general death-rate is above the average of previous years, but if the deaths of visitors are excluded, the rate would be reduced to 11·8 per 1,000 of the resident population.

Infectious Diseases.—Cases notified: diphtheria 1, scarlet fever 2, enteric fever 1 (fatal). Non-notifiable diseases: no deaths. Both scarlet fever patients were visitors. In the enteric fever case cockles were suspected as the cause of the disease, although there is a possibility

that defective drains at the patient's house might have caused the mischief.

Hospital Accommodation provided at the Fylde, &c., joint hospital at Moss Side. One case of scarlet fever removed.

Disinfection.—No apparatus. Houses fumigated with sulphur and formalin.

Water Supply. obtained from the Fylde Water Board, is derived from the Bleasdale and Grizedale Fells.

Sewerage, Scavenging, &c.—The Gynn estate sewer empties, by arrangement, into the mains of the Blackpool Corporation. Additional sewers have been laid during the year in Red Bank Road, Hesketh Place, Norbreck, &c. The open sewer ditch which formerly conveyed the sewage from Norbreck, and which has been a great public nuisance for years, will now only be used for surface water. The manhole gratings have been closed and the question of ventilating the sewers is now under consideration. The Authority undertake scavenging.

Sanitary Inspection.—One house unfit for human habitation was demolished, and one insanitary cowshed was condemned. Dairy and cowshed regulations have been adopted, and came into operation on January 1st, 1907. These regulations should be strictly enforced, as it is stated that, with few exceptions, the cowsheds are deficient in air-space, light, and ventilation, and the drainage is unsatisfactory. Factories and workshops received 48 visits, 4 defects being discovered. Five privies have been converted into water closets, and only 28 of these objectionable premises now remain. A public mortuary was erected during the year. The Inspector (Mr. Maxwell) served 71 notices and secured the abatement of 67 nuisances. Three smoke observations were taken.

Blackrod.—(Area in acres, 2,392 ; Estimated Population, 4,000).—*Medical Officer of Health*, J. W. UNSWORTH, M.B. ; *Salary*, £20.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	30.5	13.0	0.75	0.75	4.00	139
1905	31.2	14.7	1.50	0.50	5.00	128
Mean of 10 years						
1896-1905	31.7	15.9	2.31	0.48	3.63	135
<i>Increase or Decrease on—</i>						
<i>Previous Year</i>	−0.7	−1.7	−0.75	+0.25	−1.00	+11
<i>Ten Years' Average.</i>	−1.2	−2.9	−1.56	+0.27	+0.37	+4

The general death-rate and zymotic rate again declined, but there was a slight increase in the rate of deaths of infants under one year.

Infectious Diseases.—Cases notified : diphtheria 7 (2 deaths), scarlet fever 7, enteric fever 1, erysipelas 2. Non-notifiable diseases : diarrhoea 1 death. The comparative freedom from infectious disease is attributed “partially to the improved sanitary arrangements, partially to the possession of an infectious diseases hospital, and, in a degree, also to the disinfection of schools during holiday time.”

Hospital Accommodation provided at Fall Birch jointly with Horwich, &c. Cases treated : diphtheria 1, scarlet fever 3.

Disinfection.—No apparatus.

Water Supply “excellent and abundant,” obtained from the Council’s reservoir at Rivington.

Severage, Scavenging, &c.—Sewage is treated by settlement and irrigation on two farms, viz., “Nightingale” in

the Ribble Watershed, and "Seot Lane," in the Mersey and Irwell Watershed. The Authority carry out scavenging in a satisfactory manner.

Sanitary Inspection.—Dairy and cowshed regulations have been adopted, but they are not yet enforced. Seven inspections of the factories and workshops took place. The Inspector served 19 notices for the abatement of nuisances.

Brierfield.—(Area in acres, 807 ; Estimated Population, 7,800).—*Medical Officer of Health*, J. S. WILSON, M.B. ; *Salary*, £30 (no claim).

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	21·7	13·0	2·56	0·64	2·94	164
1905	.....	22·4	13·5	1·16	1·16	2·59	156
Mean of 8 years							
1898-1905	.....	25·6	14·0	1·92	0·93	3·15	160
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>	.....	—0·7	—0·5	+1·40	—0·52	+0·35	+8
<i>Eight Years' Average</i>		—3·9	—1·0	+0·64	—0·29	—0·21	+4

The birth-rate is the lowest recorded for the district, and the general death-rate is also below the average. The zymotic and infant rates are, however, less favourable.

Infectious Diseases.—Cases notified : diphtheria 16 (1 death), scarlet fever 14, enteric fever 3, erysipelas 6. Non-notifiable diseases : measles 12 deaths, diarrhoea 7 deaths, School closure was resorted to on account of the prevalence of measles.

Hospital Accommodation is provided at the Burnley, &c., joint hospitals. Cases treated : diphtheria 5, scarlet fever 5, enteric fever 1.

Disinfection.—Steam apparatus at Burnley available. Houses are fumigated with sulphur and formalin.

Water Supply good and plentiful, obtained from the Nelson Corporation. The residents of Marsden Heights depend on spring water; it is of good quality and abundant, but has to be carried a long distance in some cases.

Sewerage, Scavenging, &c.—Sewage is treated in septic tanks and on double contact beds. Scavenging is performed in a satisfactory manner by the Authority, the refuse being taken to the Nelson destructor.

Sanitary Inspection.—Regulations under the Dairies, Cowsheds, and Milkshops Order have been drawn up and these are now awaiting the sanction of the Local Government Board. The cowsheds are in “fair” condition, and the slaughter-houses “satisfactory.” Fifty-four inspections were made of factories and workshops, and 12 canal boats were examined. The Inspector (Mr. Halstead) served 107 notices and secured the abatement of 174 nuisances.

Carnforth.—(Area in acres, 1,505; Estimated Population, 3,200).—*Medical Officer of Health*, EDWARD S. JACKSON, M.D.; *Salary*, £20.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phtthisis Death-rate.	Respiratory Death-rate.	
1906	.....	20·9	10·6	0·31	1·25	0·31	74
1905	.....	27·4	10·3	0·96	0·32	1·29	70
Mean of 10 years							
1896-1905	.....	28·9	11·8	0·63	0·65	1·81	106
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year.</i>	.....	—6·5	+0·3	—0·65	+0·93	—0·98	+4
<i>Ten Years' Average.</i>	.....	—8·0	—1·2	—0·32	+0·60	—1·50	—32

The death-rate is low, but it would have been even more

favourable but for the large number of deaths of persons over 65 years of age, due to the severity of the winter. The birth-rate is the lowest recorded.

Infectious Diseases.—Cases notified : scarlet fever 18, enteric fever 4 (1 death), puerperal fever 1 (fatal). Non-notifiable diseases : no death.

Hospital Accommodation.—An iron structure at Crag Bank, with two wards, each to hold 6 beds. Cases treated : enteric fever 1 (fatal).

Disinfection.—No apparatus, house fumigation by sulphur relied upon.

Water Supply.—satisfactory and pure, is obtained from the Carnforth Waterworks Company's reservoir situated at Withets, the gathering ground for which is partly of a peaty and partly of a sandstone nature, consequently the water is not hard. Before distribution to the district, the water passes through a system of carbon filters. In addition to the above supply, the company have made arrangements with the Manchester Corporation to obtain a supply of water from their mains if the ordinary supply falls short.

Sewerage, Scavenging, &c.—The sewage, after subsidence in tanks, runs into the River Keer, which is a tidal stream. Periodical flushing of all sewers takes place. Scavenging is performed by contract.

Sanitary Inspection.—House accommodation for the working classes is said to be very satisfactory ; special attention is paid to the sewers of new houses. Bakehouses, slaughter-houses, dairies and cowsheds, and factories and workshops are all said to be in a sanitary condition. It was not necessary to issue any notices for the abatement of nuisances.

Chadderton.—(Area in acres, 3,082; Estimated Population, 26,600). — *Medical Officer of Health*, HAROLD ASHTON, L.R.C.P.E.; *Salary*, £65.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	27·9	18·1	2·10	1·72	2·81	116
1905	27·2	17·0	1·48	1·33	3·01	145
Mean of 10 years						
1896-1905	27·3	18·2	2·12	1·33	3·55	170

Increase or Decrease

on—

<i>Previous Year</i>	+0·7	+1·1	+0·62	+0·39	—0·20	—29
<i>Ten Years' Average</i>	+0·6	—0·1	—0·02	+0·39	—0·74	—54

With the exception of the respiratory and infant rates the mortality averages are not so favourable as last year, but it is satisfactory to note that notwithstanding the unusually large number of deaths of infants from diarrhoea, the infant mortality is the lowest ever recorded for the district.

Infectious Diseases.—Cases notified: small-pox 28, diphtheria 23 (9 deaths), scarlet fever 122 (8 deaths), enteric fever 10 (1 death), erysipelas 12 (2 deaths), puerperal fever 2 (1 death), chicken-pox 120. Non-notifiable diseases: measles 17 deaths, whooping cough 4 deaths, diarrhoea (including 5 deaths under one year from "enteritis") 17 deaths. Of the 28 cases of small-pox, 3 were over 20 years of age and had been vaccinated in infancy, and 25 were under 20 years old, and unvaccinated, except in four cases where vaccination was only performed a week or more after exposure to infection from a case of small-pox in the same house, and consequently too late to prevent the outbreak. All the cases were of a mild type. There was considerably less scarlet fever than in 1905—122 against 209—but the district was never quite free from

it. School closure took place at various times on account of the prevalence of measles, mumps, and whooping cough. A rather wide-spread outbreak of influenza occurred in the latter part of December.

Hospital Accommodation.—For small-pox the Chadderton, &c., joint hospital at Cinder Hill is available, and other infectious diseases are removed to the Westhulme hospital belonging to the Oldham Corporation. Cases treated : small-pox 28, diphtheria 2 (1 death), scarlet fever 16 (2 deaths), enteric fever 3.

Disinfection.—The steam apparatus at the Cinder Hill hospital is used for the disinfection of clothing, bedding, &c., in case of small-pox. For other purposes there is no provision.

Water Supply obtained from the Oldham Corporation.

Sewerage, Scavenging, &c.—Sewage is treated on the International system. The Order of Court obtained by the Mersey and Irwell Joint Committee calling upon the Council to execute certain works in connection with the interception of the sewage of a portion of their district has, from time to time, been extended. The Authority undertake scavenging. More attention should be paid to back passages, which in some instances are unpaved, and sloppy in wet weather. Many of the backyards are either unpaved or very badly paved, allowing water and filth to collect.

Sanitary Inspection.—Ten insanitary houses were condemned as unfit for human habitation : four were closed, and 6 made habitable. Dairies and cowsheds—in fair condition—are subject to regulations, but these are not strictly enforced. Sixty-two inspections of factories and workshops resulted in various improvements. Of the 33 canal boats examined, 2 were found to be in bad condition, and the owners were requested to carry out the necessary alterations. The

Inspector served 121 notices, and as a result, 108 nuisances were remedied. Smoke observations are taken but "no record kept."

Childwall.—(Area in acres, 830 : Estimated Population, 222.)—*Medical Officer of Health*, HENRY HARVEY, M.B. : *Salary*, £20.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	9.0	9.0	nil.	nil.	4.50	nil.
1905	.....	13.5	4.5	nil.	nil.	nil.	nil.
Mean of 10 years							
1896-1905	.....	14.8	5.0	0.48	nil.	1.38	160
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	.....	—4.5	+4.5	..	..	+4.50	..
<i>Ten Years' Average</i>	.....	—5.8	+4.0	—0.48	..	+3.12	—160

Only 2 births and 2 deaths were registered during the year under report. Zymotic disease has not caused a single death since the year 1896.

Infectious Diseases.—No cases notified or ascertained.

Hospital Accommodation.—By arrangement the Liverpool Corporation hospitals are available when required.

Disinfection.—Liverpool apparatus used when occasion arises.

Water Supply excellent, from the Liverpool mains.

Sewerage, Scavenging, &c.—Sewage flows into cesspools. Scavenging is carried out partly by the Authority and partly by contract.

Sanitary Inspection.—Dr. Harvey again draws attention to the want of better accommodation for the farm labourers, &c. The existing accommodation is quite inadequate for the needs of the district and some of the cottages are in wretched condition, quite unfit for habitation owing to the limited cubic space, lack of ventilation, &c. There are only two cow-sheds in the district; regulations are not adopted, and the Medical Officer advises his Council to move in this matter.

Chorley (Borough).—(Area in acres, 3,614; Estimated Population, 29,500).—*Medical Officer of Health*, JAS. A. HARRIS, M.D. (Lond.); *Salary*, £60 (no claim).

Vital Statistics.

PER 1,000 OF POPULATION.

	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	26·8	15·6	1·79	0·81	3·11	140
1905	26·7	15·8	0·75	0·93	3·17	141
Mean of 10 years						
1896-1905	28·9	18·8	1·69	0·98	3·49	184

Increase or Decrease on—

<i>Previous Year</i>	+0·1	−0·2	+1·04	−0·12	−0·06	−1
<i>Ten Years' Average</i>	−2·1	−3·2	+0·10	−0·17	−0·38	−44

The birth-rate is only fractionally higher than that of 1905, and with the exception of that year, is the lowest recorded. The general death-rate is below that of any preceding year, and, excepting 1894, the same may be said of the infantile mortality. East and West Wards show a less mortality in 1906 than in 1905, and than the average mortality for the decade, whilst the number of deaths in North and South Wards, though well below the ten years' average, are slightly in excess of the numbers obtaining in 1905. The increase in the zymotic rate as compared with last year is

“ more apparent than real,” being due partly to the new method of preparing the Local Government Board Tables referred to on page 2 of the County report, and partly to the number of deaths from measles (12) as compared with no deaths in 1905.

Infectious Diseases.—Cases notified : diphtheria 14 (5 deaths), scarlet fever 24 (1 death), enteric fever 8 (3 deaths), erysipelas 13 (2 deaths), puerperal fever 1 (fatal). Non-notifiable diseases : measles 12 deaths, whooping cough 5 deaths, diarrhoea (including 9 deaths under one year from “ enteritis ”) 27 deaths. The number of infectious cases reported is the lowest on record, and the decrease is specially noticeable in the case of scarlet fever, which was much less prevalent than in any year since the Notification Act came into force. The Council has, during the year, relaxed the stringency of the regulations respecting sending patients suffering from scarlet fever to the hospital, and has instructed the Medical Officer of Health only to insist upon the removal of those cases where in his opinion sufficient isolation cannot be procured at home. Typhoid fever is becoming a much rarer disease in Chorley than it used to be. Measles was very prevalent in the Spring and Autumn, school closure having to be resorted to on both occasions.

Hospital Accommodation.—The joint hospital at Heath Charnock was used for the isolation of the following cases from the Borough :—diphtheria 4, scarlet fever 19 (1 death), enteric fever 1, erysipelas 1. Ten beds at the Finnington small-pox hospital belonging to the Blackburn Corporation are reserved for cases arising in the districts under the jurisdiction of the Chorley Joint Hospital Board.

Disinfection.—Goddard, Massey, and Warner’s steam apparatus provided at the Town’s yard. Articles disinfected numbered 1,001 and 51 houses were fumigated.

Water Supply, obtained from the Liverpool Corporation, has been generally satisfactory during the year. In some parts of the North Ward (Botany and Heapey Road) the supply has not been by any means sufficient, and frequent complaints of this deficiency have been made to the Engineer. The water mains in this portion of the town are, in Dr. Harris's opinion, not of sufficient size to satisfy the reasonable wants of the population.

Sewerage, Scavenging, &c.—Sewage is treated by precipitation and filtration at four outfall works, viz., Heapey, Botany, Cowling, and the main works at Common Bank. The latter works have been improved during the year, and the main sewers extended in various parts of the Borough. The sewers are flushed under the direction of the Borough Surveyor, and the Nuisance Inspector supervises the systematic flushing and cleansing of closets, yard gullies, &c. Scavenging is performed in a satisfactory manner by the Council's employees. A refuse destructor is provided, and plans and estimates have been prepared for the erection of a small plant to convert fish offal into manure.

Sanitary Inspection.—House accommodation is generally good, only a few back-to-back houses now remain. The public slaughter-house is not up to the standard of present day requirements; there is no place for hanging the meat except in the slaughter-house where animals are being killed, and the walls and floors are not made of an impervious material that can be easily cleaned. Improvements in these respects are contemplated. A special inspection of dairies and cowsheds was made, and on the report of the Medical Officer of Health the Council has decided to apply for sanction to substitute for the regulations at present in force in the Borough the model regulations of the Local Government Board. The sanitary condition of factories and workshops is generally very good. The Inspector served 845 notices for the abatement of nuisances.

Church.—(Area in acres, 529 ; Estimated Population, 6,800).—*Medical Officer of Health*, A. B. Craig, M.B. ; *Salary*, £30.

Vital Statistics.

		PER 1,000 OF POPULATION.					
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate	Rate of Deaths under 1 year to 1,000 Births.
1906	.....	21·7	16·3	1·32	0·88	1·76	128
1905	.....	23·1	16·2	2·37	0·74	3·55	173
Mean of 10 years							
1896-1905	.....	25·6	16·2	2·22	0·92	3·36	154
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>		—1·4	+0·1	—1·05	+0·14	—1·79	—45
<i>Ten Years' Average</i>		—3·9	+0·1	—0·90	—0·04	—1·60	—26

The death-rate remains practically stationary, but the zymotic and infant rates each show a satisfactory decline.

Infectious Diseases.—Cases notified : diphtheria 1 (fatal), scarlet fever 19 (1 death), enteric fever 1 (fatal), erysipelas 4. Non-notifiable diseases : whooping cough 4 deaths, diarrhoea 2 deaths.

Hospital Accommodation.—Nil.

Disinfection.—A steam disinfecting chamber is provided at the gas works.

Water Supply obtained from the Accrington, &c., Joint Board. During the year there were very few complaints regarding either the quality or the quantity of the water supplied.

Sewerage, Scavenging, &c.—Sewage is treated at the Accrington and Church joint outfall works at Coppy Clough. The plant consists of open septic tanks, sprinkler filters, and small sedimentation tanks. During the summer very unpleasant smells emanated from the sewage works, constituting

a serious nuisance to the residents of the Dill Hall district. Scavenging is well performed by the employees of the Council.

Sanitary Inspection.—Dairies and cowsheds are clean and well ventilated—these places are now subject to regulations adopted in October, 1906. One hundred and fifty-four visits of inspection were paid to the factories and workshops, and 142 defects were discovered. The Inspector secured the abatement of 142 nuisances. Smoke observations numbered 35.

Clayton-le-Moors.—(Area in acres, 1,059 : Estimated Population, 8,700).—*Medical Officer of Health*, L. TATTERSALL, M.R.C.S. : *Salary*, £30.

Vital Statistics.

PER 1,000 OF POPULATION.							
		Birth- rate.	Death- rate.	Zymotic Death- rate.	Phthisis Death- rate.	Respira- tory Death- rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	.....	28·8	14·2	1·83	1·03	1·72	139
1905	.....	25·0	14·5	0·93	0·69	2·79	134
Mean of 10 years							
1896-1905	.....	27·7	16·1	1·89	0·78	2·83	161
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>		+3·8	−0·3	+0·90	+0·34	−1·07	+5
<i>Ten Years' Average</i>		+1·1	−1·9	−0·06	+0·25	−1·11	−22

A considerable increase in the birth-rate, as compared with last year, is accompanied by a fractional decrease in the death-rate. The zymotic, phthisis, and infant rates are, however, higher than the rates of 1905. Reporting on the latter rate, Dr. Tattersall says the average suggests both ignorance and carelessness in the rearing of infants. Many causes contribute to this early mortality, but the usual factors are ignorant feeding and nursing. The necessity of out-nursing also contributes to this mortality.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 9, scarlet fever 6, enteric fever 7 (1 death), erysipelas 8. Non-notifiable diseases : measles 8 deaths, whooping cough 2 deaths, diarrhœa (including 1 death under one year from “ enteritis ”) 5 deaths. Measles was prevalent about the middle of the year, between 150 and 200 cases coming to the knowledge of the Medical Officer of Health, who thought it desirable in the interest of the public health, and on the grounds of a probable increase in infant mortality, to advise the closing of the schools. The District Council, however, took the unusual and undesirable step of differing from their medical adviser as to the action necessary to curtail the spread of infectious disease, and declined to close the schools. The Managers of one of the schools took independent action and closed their school.

Hospital Accommodation nil. By arrangement cases of small-pox can be removed to the Accrington Corporation hospital.

Disinfection.—No apparatus.

Water Supply is obtained from the Accrington, &c., Joint Board.

Sewerage, Scavenging, &c.—Sewage is treated at the Clayton-le-Moors and Great Harwood joint outfall works by continuous precipitation and irrigation. “ Complaints were received on account of nuisances arising from the sewage outfall of Altham (Burnley R.) and Church districts, and illness of a diphtheritic form was incident in some of the surrounding houses.” Correspondence has taken place with the Authorities concerned as to the necessity of remedying the nuisance. Opposition was also offered to a sewage scheme contemplated by a neighbouring Authority, which it was thought would give rise to a serious nuisance on the western border of the township. Scavenging is efficiently performed by the employees of the Council.

Sanitary Inspection.—The house accommodation is not quite adequate for the needs of the district, thus tending to overerowing in certain cases. The private slaughter-houses comply with the bye-laws, but a public abattoir would be an advantage both from a sanitary point of view and for the more perfect inspection of meat. The sanitary surroundings of the farms, and the conditions of the cowsheds leave something to be desired in the way of better drainage, more ventilation, and cubic space. Factories and workshops, with one or two exceptions, are in compliance with sanitary requirements; 128 visits of inspection to these premises were made. Several notices were served calling for the abatement of nuisances.

Clitheroe (Borough).—(Area in acres, 2,385; Estimated Population, 11,600).—*Medical Officer of Health*, Wm E. BARKER, M.B.; *Salary*, £40.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	22·2	15·2	1·29	0·94	2·15	131
1905	22·3	14·0	0·60	1·03	2·41	100
Mean of 10 years						
1896-1905	23·5	15·4	1·38	0·97	2·39	132
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	−0·1	+1·2	+0·69	−0·09	−0·26	+31
<i>Ten Years' Average</i>	−1·3	−0·2	−0·09	−0·03	−0·24	−1

The birth-rate remains practically stationary, but the mortality averages—excepting phthisis and respiratory rates—are in excess of those recorded in 1905. The increase in the infant mortality is chiefly due to diseases of the digestive and respiratory systems. The risk entailed by artificial feeding

of infants is referred to, and Dr. Barker suggests, as a means of reducing the infant death-rate, the teaching of hygiene in the schools, certain restrictions on the employment of women in mills, government analysis of infant foods, prohibition of sale of feeding bottles with long tubes, a better supervision of the sale of milk, the earlier registration of births, and the appointment of lady health visitors.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 2 (1 death), scarlet fever 19 (1 death), enteric fever 9 (1 death), erysipelas 8, puerperal fever 1. Non-notifiable diseases: measles 1 death, whooping cough 3 deaths, diarrhoea (all under one year registered as “enteritis”) 8 deaths. In at least 5 of the enteric fever cases the disease was almost certainly contracted from food obtained from outside the town. For the second year in succession not a single case of infectious disease has been notified in Low Moor.

Hospital Accommodation.—For ordinary infectious cases there is no provision. For small-pox the town has the joint use together with the Clitheroe and Bowland rural districts of a small hospital provided with 8 beds.

Disinfection.—No apparatus. Thirty-four houses were fumigated with sulphur.

Water Supply. derived from upland sources, is excellent in quality and adequate in amount.

Sewerage, Scavenging, &c.—The method of sewage treatment is by continuous settlement or precipitation followed by irrigation. Three bacteria beds have recently been erected. The sewers are periodically flushed. The Authority carry out scavenging in a satisfactory manner.

Sanitary Inspection.—The back-to-back houses—251 in number—are gradually being converted. Three insanitary

houses were condemned, and 4 cases of overcrowding dealt with. The six private slaughter-houses have been kept clean. A public abattoir has recently been completed. Dairies and cowsheds are periodically inspected, and as far as cleanliness is concerned, there is no complaint to make, but some of the cowsheds are defective as regards ventilation, light and air space. Factories and workshops received 147 visits—the sanitary accommodation is in fair condition, a great improvement in this respect has been made during the year under report. The Inspector (Mr. Davies) secured the abatement of 299 nuisances. Several smoke observations were taken.

Colne (Borough).—(Area in acres, 5,063 : Estimated Population, 24,500).—*Medical Officer of Health*. W. LYONS LOVETT, L.R.C.P.E. : *Salary*, £100.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	24·2	14·9	3·75	0·93	2·61	175
1905	24·6	13·2	0·65	0·65	3·26	134
Mean of 10 years						
1896-1905	27·0	14·6	2·07	1·08	3·19	163

Increase or Decrease

on—

<i>Previous Year</i>	−0·4	+1·7	+3·10	+0·28	−0·65	+41
<i>Ten Years' Average</i>	−2·8	+0·3	+1·68	−0·15	−0·58	+12

A slight reduction in the birth-rate, which is the lowest ever recorded, is accompanied by an increase in the general death-rate, zymotic, phthisis, and infant rates. The increase in the infantile mortality is attributed to a severe epidemic of measles which occurred during the early part of the year, and to the occurrence of diarrhoea in July, August, and September. In previous reports, Dr. Lovett has drawn

attention to the excessive death-rate recorded amongst infants, and with a view to reducing this mortality it is pleasing to note that the Mayor has generously offered to guarantee the expenses of a trained nurse, whose primary duty shall be to devote her time to the instruction of mothers in the rearing and feeding of infants.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 11 (3 deaths), scarlet fever 191 (8 deaths), enteric fever 7, erysipelas 22 (1 death). Non-notifiable diseases: measles 32 deaths, diarrhoea 48 deaths. Scarlet fever was prevalent throughout the year, chiefly affecting children attending school, 104 cases being notified among children of school age. One child was discovered attending school while suffering from the disease, and on a visit being paid to the home two other children were found to be infected, and at the same time the mother was following her work at the mill. Hospital isolation adopted in only one case. Typhoid fever caused fewer cases than in any previous year since 1900: 11 suspected cases were submitted to Widal's test, 7 gave a positive reaction and 4 negative. A severe epidemic of measles broke out in Vivary Bridge Ward amongst the children attending Lord Street school during the months of March and April, and school closure was resorted to. Handbills giving directions as to precautionary measures to be adopted were freely distributed throughout the district, and all the schools in the Borough were fumigated and the drains flushed. Diarrhoea became prevalent in June and continued into October, 9 deaths being registered in one week from this cause. Printed handbills were distributed requesting that all sanitary defects be reported, and directions given as to the care of food, &c., with special instructions as to the treatment of milk intended for food of infants. The mortality amongst infants was so high that it was thought advisable to submit a sample of milk for analysis, with the result that it was

found to contain “an excessive quantity of filth, principally in the form of faecal matter derived from the cow.”

Hospital Accommodation is available for small-pox, and an arrangement exists with the Burnley, &c., Joint Hospital Board for cases of other infectious diseases. Cases treated : diphtheria 1 (fatal), scarlet fever 1, enteric fever 3 (1 death).

Disinfection.—No apparatus. Houses are fumigated either with sulphur or formalin.

Water Supply, obtained from Reedshaw Moss, is described as plentiful, but, as in previous years, many complaints have been received regarding the colour and taste of the water, and the deposit of flocculent matter on standing. New filter beds will be provided during the year 1907.

Sewerage, Scavenging, &c.—Sewage is treated in open septic tanks followed by double contact in bacteria beds. It is expected that the extensions to the double contact beds will shortly be completed. Scavenging is carried out satisfactorily by the Corporation servants, the refuse being taken to the destructor.

Sanitary Inspection. — Bakehouses, slaughter-houses, lodging-houses, houses let in lodgings, &c., receive periodical visits, and, on the whole, are well kept. There are as yet no permanent tenants for the public abattoirs, but the occasional users are on the increase. During the year the Health Sub-Committee have visited the whole of the farms within the Borough, and the interest taken in this work has been the means of stirring up the farmers to a greater sense of their responsibility. New bye-laws and regulations relating to cowsheds, slaughter-houses, &c., have been forwarded to the Local Government Board for their approval. Factories and workshops came under observation, and in a few instances notices were required to remedy defects. The Inspector (Mr. Sugden)

served 544 notices for the abatement of nuisances, and in two instances legal proceedings were instituted. Twenty-two smoke observations were taken.

Crompton.—(Area in acres, 2,865 : Estimated Population, 13,500).—*Medical Officer of Health*, WILLIAM BROOKE, M.A., M.D. ; *Salary*, £70.

Vital Statistics.

PER 1,000 G. POPULATION.						
	Birth-rate.	Death-rate.	Zymotic death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	23·0	16·0	2·00	0·37	3·40	144
1905	22·6	13·6	1·33	1·11	2·44	114
Mean of 10 years						
1896-1905	25·0	17·4	1·64	0·97	3·54	175

Increase or Decrease

on—

<i>Previous Year</i>	+0·4	+2·4	+0·67	−0·74	+0·96	+30
<i>Ten Years' Average</i>	−2·0	−1·4	+0·36	−0·60	−0·14	−31

The birth-rate shows a fractional increase as compared with last year, but the mortality averages, with the exception of the phthisis rate, are not so satisfactory. The infantile death-rate, although not excessive, is higher than it ought to be, and arrangements were made for a course of lectures on the feeding of infants to be given during the year. Now that this matter has been seriously taken up, some improvement in the near future may be reasonably expected.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 8 (2 deaths), scarlet fever 132 (6 deaths), enteric fever 5 (2 deaths), erysipelas 11, puerperal fever 1. Non-notifiable diseases : measles 1 death, whooping cough 2 deaths, diarrhoea (including 6 deaths under 1 year from “enteritis”) 14 deaths. Anti-diphtheritic serum is supplied

free of charge to local medical practitioners by the District Council. Scarlet fever was prevalent throughout the whole of the year. During the Winter and early Spring the cases were of a sporadic character, but in the months of May, June, and July, they became more numerous. The closure of the schools incurred by the summer holidays tended to check the spread of the disease, but in the month of November it was found necessary to adopt further school closure. Dr. Brooke says the principal thing noticeable in connection with this epidemic was the tendency shown by the public to have the infected persons removed to the isolation hospital, the benefits of which they are learning to appreciate.

Hospital Accommodation.—The joint hospital at Cinder Hill is available for small-pox cases, and the Westhulme hospital, Oldham, is used for other diseases. Cases treated : scarlet fever 17.

Disinfection.—A “ Thresh ” disinfecter is available.

Water Supply, described as good, is obtained from the Oldham Corporation.

Sewerage, Scavenging, &c.—Sewage is dealt with at two outfall works—Low Crompton and Newhey. A large bacterial filter bed has been constructed at the Newhey works, and a building to contain sludge presses is in course of erection. These should effect considerable improvement, both with regard to the effluent and disposal of the sludge. Scavenging is efficiently performed by the servants of the Council.

Sanitary Inspection.—Inspection of the district has been systematically carried out. Bakehouses, lodging-houses, and slaughter-houses are generally well conducted and kept clean ; considerable structural alterations have recently been effected at one of the latter. There are 54 dairies and cowsheds in the district, and these have been periodically inspected. In several instances notice to

cleanse was required, whilst in one case, where the premises were structurally defective and very dirty, a legal notice had to be served before the necessary improvements were effected. It is pleasing to note that since the new regulations came into force in 1905, there has been a distinct improvement in the general cleanliness of these premises. Two hundred and eighteen inspections of factories and workshops took place, 14 defects being noted. The Inspector served 192 preliminary and 21 statutory notices for nuisance abatement. Twenty-nine smoke observations were taken.

Croston.—(Area in acres, 2,347; Estimated Population, 2,130).—*Medical Officer of Health*, ALFRED DUCKWORTH, L.R.C.P.E.; *Salary*, £20.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	23.0	10.7	0.93	1.40	1.40	122
1905	24.5	13.6	0.94	nil.	0.47	38
Mean of 10 years						
1896-1905	24.7	14.6	1.01	0.78	2.36	108

Increase or Decrease

on—

<i>Previous Year</i> ,	—1.5	—2.9	—0.01	+1.40	+0.93	+84
<i>Ten Years' Average</i> ,	—1.7	—3.9	—0.08	+0.62	—0.96	+14

The general death-rate is the lowest ever recorded in the district, but the infant rate has greatly increased, and is now above the average of previous 10 years.

Infectious Diseases.—Cases notified: scarlet fever 4, erysipelas 1. Non-notifiable diseases: diarrhoea (including 1 death under one year from “enteritis”) 2 deaths. The cases of scarlet fever were of a mild type.

Hospital Accommodation — The hospital of the West Lancashire Rural District Council at Aughton is said to have been available since the year 1902, but the privilege has never been taken advantage of.

Disinfection. — A “Thresh” steam disinfecter at the hospital is available.

Water Supply is derived from wells. It is probable that a supply will, at some future date, be obtained from the Manchester mains.

Sewerage, Scavenging, &c.—Sewage is treated by precipitation and irrigation. Dr. Duckworth considers it “a great mistake to allow part of the field on which the outfall works are situated to be used as a public recreation ground,” especially in the hot weather. The state of the River Yarrow is sometimes most objectionable, but the pollution of the stream is said to take place before it enters the district. Seavenging, as carried out by the Authority, gives satisfaction. The Council are advised to insist on ashpits being covered so as to keep out the rain water, “otherwise they are liable to become a grave nuisance.”

Sanitary Inspection.—Dairy and cowshed regulations have now been adopted, and the Medical Officer has personally visited the majority of shippens and cowsheds during the year, and found many of them “far from satisfactory,” the ventilation and lighting being at fault. A list of premises which do not conform with the bye-laws is being prepared, and will be laid before the Council. Slaughter-houses (4) are now registered, and their condition, together with the only bakehouse, is described as “good.” Twenty-five inspections of factories and workshops have been made, and 18 notices secured the rectification of a similar number of nuisances.

The report is in manuscript.

Dalton-in-Furness — (Area in acres. 7,990; Census Population, 13,000).—*Medical Officer of Health*, G. H. PATTERSON, M.R.C.S., D.P.H.; *Salary*, £115.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	23·6	15·5	2·45	1·15	2·38	146
1905	25·6	14·1	1·61	1·68	2·07	125
Mean of 10 years						
1896-1905	29·3	15·6	1·70	1·19	2·75	141
<i>Increase or Decrease on—</i>						
<i>Previous Year</i>	—2·0	+1·4	+0·84	—0·53	+0·31	+21
<i>Ten Years' Average</i>	—5·7	—0·1	+0·75	—0·04	—0·37	+5

The birth-rate has again decreased, and become the lowest on record, while the death-rate closely agrees with the average of the past ten years. The statistics for the three sub-divisions are given below:—

	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infantile Mortality.
Dalton and Newton.....	24·7	17·9	3·0	162
Lindal and Marton	19·0	31·3	1·1	179
Askam and Ireleth	21·8	4·3	1·2	85

Infectious Diseases.—(Cases notified: diphtheria 34 (9 deaths), scarlet fever 148 (4 deaths), enteric fever 7, erysipelas 15, puerperal fever 1. Non-notifiable diseases: whooping cough 1 death, diarrhœa 18 deaths. Scarlet fever was most prevalent in the first four months of the year, and all the schools in Dalton had to be closed from February 19th to March 17th to check the outbreak. The disease re-appeared in the autumn, but not in such a severe epidemic form. Dr. Patterson states “I am convinced more and more as time goes on that unless, in addition to isolation in hospital, we adopt measures to have the children regularly inspected in the

schools, we shall do no good in checking the prevalence of diphtheria and scarlet fever.”

Hospital Accommodation is provided at the joint hospital at High Carley. Cases treated : diphtheria 17, scarlet fever 49 (1 death), enteric fever 2.

Disinfection.—No apparatus available. Rooms fumigated numbered 72.

Water Supply, obtained for the greater part of the district from the Barrow Corporation mains, “has invariably been abundant.” Complaints are still made as to the turbid character of the supply to Askam, Ireleth, and Newton. A main has now been laid to the cottages at Paradise, and an extension to Sandseale Farm is in the contractor’s hands.

Sewerage. Scavenging, &c.—The sewage, after subsidence in tanks, is discharged into the sea. The extension of the Askam outfall sewer to the Duddon Estuary has not yet been carried out, but it is contemplated to complete the work with as little delay as possible. In May, a Local Government Board Inquiry was held with respect to the provision of a storm-water sewer for the relief of the pressure in the low-lying parts of the town during the times of exceptionally heavy rainfall, and sanction to a loan was granted. It is proposed to make improvements in the sewerage of certain property in Newton and Lindal. In all houses where typhoid fever, and in some cases diphtheria, occurred, the drains were tested, and many defects thereby discovered. Scavenging, satisfactorily carried out, is undertaken by the Authority.

Sanitary Inspection.—The condition of bakehouses, slaughter-houses, and dairies and cowsheds is described as “fair.” Factories and workshops received 180 visits, and 4 defects were found, necessitating 3 written notices. The good work of converting insanitary privies to w.c.’s has continued, over 100 of such conversions having taken place

during the year. The Medical Officer says "the progress of this work is most gratifying, but even at the present rate I fear we have many years of work before us." One hundred and eighty notices have been issued by the Inspector (Mr. Caine) to bring about the abatement of nuisances.

Darwen (Borough).—(Area in acres, 5,959; Estimated Population, 41,164).—*Medical Officer of Health*, F. G. HAWORTH, M.B., C.M., D.P.H.; *Salary*, £200.

Vital Statistics

PER 1,000 OF POPULATION.						
	Birth rate.	Death rate.	Zymotic Death rate.	Phthisis Death rate.	Respiratory Death rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	19·7	13·1	1·14	0·46	3·06	136
1905	20·4	14·0	1·05	0·90	2·50	144
Mean of 10 years						
1896-1905	25·1	16·1	1·97	0·78	3·33	163
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	—0·7	—0·9	+0·09	—0·44	+0·56	—8
<i>Ten Years' Average</i>	—5·4	—3·0	—0·83	—0·32	—0·27	—27

The decline in the birth-rate still continues, the average for 1906 being the lowest yet recorded. The death-rate and infant rate are also lower than in any previous year, with the exception of 1903. Referring to infantile mortality, Dr. Haworth mentions the recent Conference held in London on this question, when certain resolutions and recommendations to Parliament were passed. In his opinion "this is the only way of bringing such an important matter before the public, and particularly before those responsible for such laws as are needed to further help in reducing the present high mortality." As a commencement towards reducing this mortality he suggests a weekly conference with the very poorest of mothers, particularly those who would not come within the practice

of other medical men except as paupers, and he would undertake to keep a record of the babies, their condition and weight, and instruct the mothers and nurses on the right way of tending and feeding the infants. Such a system, he is convinced, would result in a marked decrease in a mortality which at present "does not do much credit to the present age or to our method of administration." As a result of the consideration of the question of Physical Degeneration, notices have been posted in the Borough drawing the attention of the people to the ill effects of alcoholism.

Infectious Diseases.—Cases notified: diphtheria 18 (1 death), scarlet fever 50 (3 deaths), enteric fever 17 (4 deaths), erysipelas 17 (1 death), puerperal fever 4 (2 deaths). Non-notifiable diseases: measles 17 deaths, whooping cough 1 death, diarrhoea (including 11 deaths under 1 year from "enteritis") 21 deaths. Diphtheria caused fewer cases than in any year since 1899, and scarlet fever also showed a tendency to wane, although the mortality rate for the latter disease is higher than in the previous year, indicating a more severe type of disease. Owing to the prevalence of measles in the early part of the year, school closure was resorted to.

Hospital Accommodation, provided at Bull Hill, consists of 20 beds and 4 cots. Cases treated: scarlet fever 19 (2 deaths). A farm house has been converted into a small-pox hospital.

Disinfection.—Steam apparatus at the hospital is available, 151 van loads of infected bedding, clothing, &c., being disinfected. Houses are fumigated with sulphur and afterwards sprayed.

Water Supply is derived from upland sources. The water supplied to Height Farm is derived from an old coal drift and conveyed in old rubble stone drains. As a result of an analysis the owners have decided to discontinue same, and obtain a supply from another source.

Sewerage, Scavenging, &c.—Sewage undergoes treatment at two outfall works. At the main sewage works the treatment consists of septic tanks, sprinkler filters, and irrigation. At the Hoddlesden works the method is by precipitation and filtration. The Ribble Joint Committee had occasion to complain of a discharge of polluting liquids taking place from the main works, the cause of which was found to be due to land subsidence. Seavenging is carried out in an efficient manner by servants of the Corporation. A refuse destructor is provided.

Sanitary Inspection.—Bakehouses have been subjected to inspection, and, on the whole, are described as “good,” although some are not kept as clean as they should be. Slaughter-houses have been under constant observation, and the model lodging-house has been found satisfactory. All the farms in the borough were inspected during the year, and in several instances alterations regarding drainage, lighting, ventilation, &c., have been carried out. Although much has been done in recent years, some of the cowsheds and dairies are still in a very dilapidated condition, whilst the drainage in most cases ought to be thoroughly overhauled. In many instances, where improvements had been made to provide fresh air and light, the openings were found to be filled with hay or other material. Factories and workshops have been periodically visited, 1,107 inspections being made, with the result that 50 defects were discovered, chiefly relating to want of cleanliness or ventilation, and defective or insufficient sanitary accommodation. The Inspectors (Messrs. Marsden and Walsh) give details of 1,795 notices served and 2,625 nuisances remedied. During the year the time allowance for the issue of black smoke from the chimneys of manufacturers within the Borough has been reduced, and this has been followed by very good results in the shape of a clearer atmosphere. Smoke observations taken numbered 319. In two instances

legal proceedings were instituted, a fine of 10s. and costs being inflicted in one case, and in the other an Order to abate granted.

Denton. — (Area in acres, 2,594 ; Estimated Population, 15,658).—*Medical Officer of Health*, F. W. ALLKIN, M.B. ; *Salary*, £40 (no claim).

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	25·4	16·5	1·21	1·66	3·19	135
1905	.....	21·6	14·8	1·67	0·77	1·73	187
Mean of 10 years							
1896-1905	.....	25·7	16·6	1·69	1·25	2·67	179
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>		+3·8	+1·7	−0·46	+0·89	+1·46	−52
<i>Ten Years' Average</i>		−0·3	−0·1	−0·48	+0·41	+0·52	−44

It is pleasing to record a diminution in the infant rate, which is the lowest ever recorded, while the birth-rate has appreciably increased as compared with the previous year, and is only fractionally below the ten years' average.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 5 (3 deaths), scarlet fever 134 (2 deaths), enteric fever 11 (2 deaths), erysipelas 19. Non-notifiable diseases : diarrhoea 12 deaths. With regard to the large number of scarlet fever cases, Dr. Allkin “ fails to see how, under the present system of treating them, the number can be materially reduced,” and he adds that it is impossible to completely isolate the cases in cottage houses where the patient's nurse, nearly always the mother, mixes among the rest of the household and carries infection to them, and thence to others outside. The majority of the cases were, however, of a very mild type. The Council supply antitoxin in all necessitous diphtheria cases, free of charge.

Hospital Accommodation.—Four beds (two for small-pox), for which a retaining fee is paid, may be used at the Hyde Corporation hospital. Only 4 cases of scarlet fever were removed.

Disinfection.—No appliances. The Medical Officer states that there is urgent need of some form of apparatus whereby clothes, &c., may be thoroughly disinfected.

Water Supply, described as “wholesome and good,” is obtained from the Manchester Corporation.

Sewerage, Scavenging, &c.—Sewage is dealt with at the outfall works by precipitation and afterwards in bacteria beds, or by intermittent downward filtration. The Council’s own staff carry out scavenging satisfactorily.

Sanitary Inspection.—No special action was required respecting bakehouses, slaughterhouses, and dairies and cowsheds. Eleven inspections of factories and workshops were made and 4 defects found. The conversion of privies to water closets is receiving attention, a “good number” being so altered during the year. Notices served for abatement of nuisances numbered 56, the majority being remedied.

Droylsden. — (Area in aeres, 1,010 ; Estimated Population, 12,000).—*Medical Officer of Health*, ANDREW GELLATLY, M.B. ; *Salary*, £60.

Vital Statistics.

PER 1,000 OF POPULATION.							Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.		
1906	29·9	17·8	2·91	1·66	2·08		144
1905	29·1	16·2	1·69	1·44	2·96		154
Mean of 10 years							
1896-1905	29·9	17·5	2·32	0·92	3·68		169
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>	+0·8	+1·6	+1·22	+0·22	—0·88		—10
<i>Ten Years’ Average</i> ..	+0·3	+0·59	+0·74	—1·60			—25

The mortality among infants under 1 year has again

decreased, and the rate for the period under report is the lowest recorded during the past 10 years.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 19 (3 deaths), scarlet fever 143 (8 deaths), enteric fever 11 (2 deaths), erysipelas 8, puerperal fever 2 (both fatal). Non-notifiable diseases : measles 13 deaths, whooping cough 1 death, diarrhoea (including 5 deaths under one year from “ enteritis ”) 8 deaths. Scarlet fever and measles were very prevalent during the year, and in May and July schools were closed on this account. The whole of the deaths from measles occurred in children under 5 years of age. Dr. Gellatly believes that the exclusion from school of children under this age would be beneficial to the infants from a health point of view, and a considerable saving financially to the ratepayers.

Hospital Accommodation is available at the Hyde hospital, but only 2 cases of scarlet fever were removed.

Disinfection.—No proper appliances. Disinfectants were supplied to houses where infectious disease has occurred, and for many months school premises were weekly disinfected by means of formaldehyde, sprayed or vapourized.

Water Supply obtained from the Manchester Corporation.

Sewerage, Scavenging, &c.—The Local Government Board have sanctioned a loan for the extension and alteration of the existing sewage works, and, after pressure by the Mersey and Irwell Joint Committee, owing to the unsatisfactory character of the effluent, the scheme is now being proceeded with. The sewers of the Council have been regularly cleaned out. The Nuisance Inspector supervises the scavenging. The necessity of providing a destructor is emphasised on account of the difficulty experienced in obtaining suitable places for the disposal of refuse.

Sanitary Inspection.—Nineteen houses have been closed as unfit for human habitation, 16 by the owners and the remainder by the Council. The whole of the shippens, slaughter-houses, and milkshops have received constant attention, and “their sanitary standard is becoming very much higher.” The Medical Inspector of the Local Government Board has made a thorough examination of these premises. Factory and workshop inspections numbered 164, and 6 defects were noted. The conversion of privies and ashpits into water closets is progressing at a “satisfactory rate.” 114 being so altered during the year. Smoke observations are “regularly taken.” The Inspector (Mr. Hall) served 26 notices for nuisance abatement. Form C not supplied.

Eccles (Borough).—(Area in acres, 2,057 ; Estimated Population, 38,500).—*Medical Officer of Health*, W. M. HAMILTON, M.D., D.P.H. ; *Salary*, £250.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	26·2	13·8	1·74	1·11	2·33	139
1905	.....	25·2	13·4	1·10	0·92	2·50	109
Mean of 10 years							
1896-1905	.....	26·6	15·7	2·41	1·14	2·63	146
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	.....	+1·0	+0·4	+0·64	+0·19	—0·17	+30
<i>Ten Years' Average</i>	.....	—0·4	—1·9	—0·67	—0·03	—0·30	—7

A rise in the birth-rate is accompanied by a slight increase in the death-rate. The zymotic and infant rates are less favourable than in the previous year, although below the average of the 10 years 1896-1905. During the year a large amount of useful work has been accomplished by the

Ladies' Health Society, which has for its object the preservation of the life and the promotion of the welfare of infants. The Medical Officer of Health reports that a local gentleman has intimated his desire to follow on the lines of the Huddersfield scheme for the preservation of child life, and has offered to give a sovereign to the parent of every child born on or after the 1st of February, 1907, which should be alive and healthy at the end of twelve months." The Health Committee gladly accepted this offer, and to further assist in its usefulness the Committee is offering a fee of one shilling to the person who first notifies a birth within 24 hours of its occurrence. It is pointed out that an amendment of the Registration Law is urgently required which would make obligatory the registration of births within, at the outside, three days. Such an enactment would greatly strengthen the hands of a conscientious Committee anxious to reduce the great waste of human life.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 29 (5 deaths), scarlet fever 208 (5 $\frac{1}{2}$ deaths), enteric fever 22 (4 deaths), erysipelas 9 (2 deaths), and puerperal fever 1. Non-notifiable diseases: measles 3 deaths, and diarrhoea (including 23 deaths under one year from "enteritis") 50 deaths. During the year the following notifications were received from the various schools:—measles 196, chicken-pox 20, mumps 20, eczema 11, ringworm 11, other diseases (ophthalmia, sore throat, influenza, &c.) 14, a total of 272. The Council, on the recommendation of the Education Committee, appointed the Medical Officer of Health Medical Inspector of Schools, and during the period he has acted in this capacity a large amount of school work has been done. The great advantages to be derived from regular medical inspection are (a) the prevention of epidemics; (b) the physical gain to the children resulting from greater cleanliness; (c) the recognition and remedying of physical defects, such as eyesight, hearing, and diseased throats, and (d) exciting in

the teachers and mothers a more sympathetic and intelligent interest in the welfare of the children. The most striking result noted is the great improvement in general cleanliness. Scarlet fever had an increased prevalence as compared with the previous year. An epidemic occurred in the autumn, which was attributed to two mild cases being overlooked and allowed to go about whilst desquamating. The outbreak was principally confined to the children attending the Godfrey Ermen Memorial school, and it was found necessary to close this school for a month, during which period thorough disinfection was carried out. School closure was also resorted to on account of measles. Voluntary notification of phthisis was adopted some time ago, but the Medical Officer of Health regrets that there is some difficulty experienced in getting medical practitioners to notify the existence of the disease. During the year, 22 specimens of sputum were sent to Professor Delépine for bacteriological examination, 9 of which gave positive results.

Hospital Accommodation.—For the payment of a subsidy of £60 annually, the Salford Corporation allow the use of 20 beds at their infectious hospitals for patients from this district. Cases treated: diphtheria 20 (3 deaths), scarlet fever 39 (2 deaths), enteric fever 13 (1 death), erysipelas 1 (fatal), puerperal fever 1.

Disinfection.—Steam apparatus (Manlove's) provided at the sewage farm. Four schools and 335 rooms were fumigated.

Water Supply, described as "good," is obtained from the Manchester Corporation.

Sewerage, Scavenging, &c.—Two bacteria beds have been completed during the year, and a further one is now in course of construction. A scheme for the disposal of the storm water at the sewage works by gravitation in lieu of pumping has been undertaken, and the

works in connection with same are now being proceeded with. The smoke test was applied to drains 612 times, and 102 drains were opened up for inspection. Seavenging is performed in an efficient manner under the supervision of the Chief Sanitary Inspector. Refuse is taken to the destructor erected at the sewage works.

Sanitary Inspection.—Bakehouses have been regularly inspected, 161 visits being paid to them. Seventy-one visits of inspection were made to the slaughter-houses and 51 to houses let in lodgings. The condition under which cows are kept (mentioned in last year's report) was a subject of consideration by the Committee, and it was decided to vary the regulations in respect of cubic capacity and permit the reduction of space from 800 to 600 cubic feet in the cases of shippens erected previous to the adoption of the regulations. During the year the required alterations and improvements were made in respect of ventilation and lighting; in one case an entirely new shippon was erected. The Medical Officer of Health remarks that "at the present time the chief means of legal control of the milk trade are derived from the clauses of the Dairies, Cowsheds and Milkshops Order of 1885, and the subsequent amending Orders. There is no doubt that in many rural districts the Order is a dead letter, and it would be advisable to enact that where the Sanitary Authority is in default the obligation to enforce the Order should devolve on the County Council, and also that the power to make Regulations under the Order should be compulsory and not permissive." Factories and workshops have been inspected with the result that 77 defects were found. Fifty-one examinations of canal boats revealed no infringements of the Acts. Privy middens abolished during the year numbered 240, and 407 water closets were provided in lieu thereof. The Chief Inspector (Mr. Laskey) gives details of a vast amount of sanitary work accomplished. Nuisances remedied amounted to

2,481, notices served 184, and in two instances legal proceedings were instituted. Smoke observations numbered 40 ; in two cases proceedings were taken, fines of 20s. and costs and 5s. and costs respectively being inflicted.

Failsworth.—(Area in acres, 1,072 ; Estimated Population, 14,900).—*Medical Officer of Health*, G. S. LESLIE, M.B. ; *Salary*, £50 (no claim).

Vital Statistics.

PER 1,000 OF POPULATION.							
	Birth- rate.	Death- rate.	Zymotic Death- rate.	Phthisis Death- rate.	Respira- tory Death- rate.	Rate of Deaths under 1 year to 1,000 Births.	
1906	27·7	16·9	2·55	1·61	2·55	150	
1905	27·5	15·1	0·87	0·94	2·83	166	
Mean of 10 years							
1896-1905	30·2	17·3	1·94	1·19	2·98	170	
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	+0·2	+1·8	+1·68	+0·67	—0·28	—16	
<i>Ten Years' Average</i> .—	2·5	—0·4	+0·61	+0·42	—0·43	—20	

The birth-rate, although fractionally in excess of 1905 is, with the exception of the year mentioned, the lowest ever recorded. The infantile mortality is more favourable than it has been for the past decade.

Infectious Diseases.—Cases notified : small-pox 1, diphtheria and membranous croup 14 (6 deaths), scarlet fever 62 (2 deaths), enteric fever 4 (3 deaths), erysipelas 3. Non-notifiable diseases : measles 12 deaths, whooping cough 1 death, diarrhoea 14 deaths. The case of small-pox was that of a man, unvaccinated, whose occupation took him to Oldham, where the disease was then prevalent. Scarlet fever was much in evidence during the year. In one case, infection was traceable to two unreported cases in Ashton Road East, and the mother concerned was severely censured by the Health Committee.

All the fatalities attributed to measles were those of children under 5 years of age. Owing to the prevalence of this disease St. Mary's School was closed for a month.

Hospital Accommodation.—The Westhulme fever hospital of the Oldham Corporation is available for scarlet fever, and the Strinesdale hospital, belonging to the same Corporation, for small-pox. By arrangement, a fee of £2 2s. per week per patient is paid. Cases treated : small-pox 1, scarlet fever 8. One case of crysipelas was, for convenience, removed to the Prestwich Union hospital.

Disinfection.—No apparatus. Rooms fumigated numbered 82.

Water Supply, said to be “good and plentiful,” is obtained mainly from the Oldham Corporation.

Sewerage, Scavenging, &c.—In August a Local Government Board Inquiry was held with respect to an application for sanction to borrow £3,466 for extension of the sewage works. “The Sewage Committee is sparing no time or money to make the works efficient.” A new pumping apparatus has been introduced and the settling tanks are to be enlarged. The Authority carry out scavenging in a satisfactory manner. The refuse is disposed of on “tips.”

Sanitary Inspection.—Twenty-one notices under the Housing of the Working Classes Acts were served on the owners of several blocks of property abutting on Wickentree Lane, and successful legal proceedings were instituted in the case of 9 dwelling-houses. A searching enquiry—extending over four days—was made by Dr. Spencer Low, of the Local Government Board, as to the sanitary condition of the district. No special comments are made with respect to bakehouses, slaughter-houses, dairies, &c. As a result of 157 inspections of factories and workshops, two defects were found and both remedied. No contraventions of the Act were disclosed in the

52 inspections of canal boats. Sixty-one privies and 34 pail closets have been converted to the water-carriage system. The Inspector (Mr. Wharton) secured the abatement of 354 nuisances after the service of 95 notices. The Council have reduced the period of smoke observations from 60 to 30 minutes, and the limit of black smoke is now fixed at 4 minutes in the half-hour. Thirteen observations were taken during the year and legal proceedings instituted in one case.

Farnworth.—(Area in acres, 1,504 ; Estimated Population, 26,000).—*Medical Officer of Health*, ALFRED KERSHAW, M.D. ; *Salary*, £40 (no claim).

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	25·8	17·1	3·07	1·11	2·42	188
1905	.....	28·8	18·8	3·84	0·96	3·30	226
Mean of 10 years							
1896-1905	.....	29·8	19·0	3·18	1·03	3·38	229
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	.....	—3·0	—1·7	—0·77	+0·15	—0·88	—38
<i>Ten Years' Average</i>	.....	—4·0	—1·9	—0·11	+0·08	—0·96	—41

As compared with last year, the birth-rate showed a considerable decline, and is the lowest on record. The general death-rate also is reduced, and the infant mortality for the first time for 12 years fell below 200. The latter rate, however, is still deplorably high, but the work of the Lady Sanitary Inspector, the Ladies' Health Committee, and the District Nursing Association is already having good effect in improving matters by giving instructions to mothers as to the care and management of their infants.

Infectious Diseases.—Cases notified : diphtheria 8, scarlet fever 35 (1 death), enteric fever 56 (14 deaths), continued fever (1 death), erysipelas 16, puerperal fever 2. Non-notifiable diseases : whooping cough 7 deaths, diarrhœa (including 12 deaths under one year from “enteritis”) 57 deaths. Enteric fever had an increased prevalence ; commenting on this, Dr. Kershaw urges further progress in the paving and sewerage of back streets and yards, and the absolute abolition of the privy midden system, the latter being admitted as the chief factor in the cause and perpetuation of enteric fever. The question of the notification of cases of phthisis and provision for isolation and treatment in sanatoria is one to which the Medical Officer suggests the attention of the Council should be given.

Hospital Accommodation.—The joint hospital has again “done good service,” the large percentage of removals testifying to the fact that the medical men in the district have faith in isolation, and also to the confidence which the general public repose in the institution. Cases treated : diphtheria 6, scarlet fever 20 (1 death), enteric fever 45 (11 deaths). For the treatment of small-pox cases an arrangement has been made with the Bury, &c., Joint Hospital Committee for the reception of cases at their Ainsworth hospital.

Disinfection.—Steam apparatus available.

Water Supply obtained from the Bolton Corporation.

Sewerage, Scavenging, &c.—Sewage is treated on two outfall works, Hall Lane and Lark Hill. It is proposed to construct additional filters at the former works, borrowing powers having been applied for. The Authority carry out scavenging.

Sanitary Inspection.—Little information is given of the sanitary work carried out. The lodging-houses of the town

are “most unsatisfactory,” and the Council are advised to take into consideration the question of providing a municipal lodging house.

Form C not supplied.

Fleetwood.—(Area in acres, 2,510 ; Estimated Population, 14,150).—*Medical Officer of Health*, W. H. ROBINSON, M.R.C.S. ; *Salary*, £80 (including £20 for the Port.)

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	30·7	15·9	3·46	0·49	2·04	140
1905	31·2	13·3	0·65	0·65	1·89	139
Mean of 10 years						
1896-1905	30·8	14·3	1·94	0·79	2·18	137
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	—0·5	+2·6	+2·81	—0·16	+0·15	+1
<i>Ten Years' Average</i>	—0·1	+1·6	+1·52	—0·30	—0·14	+3

The zymotic rate is the highest recorded since 1897, the increase being due mainly to the number of fatalities from measles and diarrhœa. The infant rate still maintains the upward tendency which commenced in 1902.

Infectious Diseases.—Cases notified : diphtheria 21 (4 deaths), scarlet fever 47, enteric fever 12 (3 deaths), erysipelas 6. Non-notifiable diseases : measles 22 deaths, whooping cough 1 death, diarrhœa (including 1 death under one year from “enteritis”) 19 deaths. Enteric fever broke out amongst the officers of a Regiment camping in the district at the end of July, and caused 3 fatalities. Most of the cases were diagnosed after leaving Fleetwood. The Military Sanitary Officers conducted a long enquiry and fixed the cause of the epidemic on the

unrecognised illness of a civilian waiter. The sanitary administration of the Camp was also open to suspicion. In November, scarlet fever broke out at Rossall School, 23 cases being notified. The rooms and studies were all disinfected, &c. Measles (22 deaths against none in 1905) was epidemic during February and March, and the whole of the schools in the district were closed. Diarrhœa was very severe in September and October : there were only 6 deaths from this disease in the previous year or less than a third of the number now recorded. It is customary to notify the Day and Sunday School Authorities and the Librarian of the occurrence of infectious disease ; the former are also warned not to receive children from the infected house, and the latter does not issue books in these cases.

Hospital Accommodation for small-pox is provided at Elswick (Fylde, Preston, and Garstang), and at Moss Side (Fylde Joint) for ordinary infectious diseases. Cases treated : diphtheria 1, scarlet fever 4, enteric fever 3.

Disinfection.—Goddard, Massey, & Warner's steam apparatus provided. Sixty-five houses disinfected.

Water Supply obtained from the Fylde Water Board's Grizedale reservoirs is of " good " quality.

Sewerage, Scavenging, &c.—Sewage is at present discharged into the harbour. The new diversion scheme, whereby the sewage will be discharged at another point into the sea, is now well advanced, and it is hoped will be completed before the end of 1907. As in previous years the sewers have been periodically flushed. The Council's employees satisfactorily perform scavenging. Refuse is destroyed at the destructor erected at the electricity works.

Sanitary Inspection. — Bakehouses (2 underground), dairies and cowsheds, and milkshops are periodically inspected. Five legal proceedings were taken for breaches of the Bye-laws

with regard to common lodging-houses. A public abattoir is provided. Factories and workshops received 244 inspections; 50 defects were found and 43 remedied. The Inspector reports on the work carried out in his department, which included:—

Houses and premises inspected	2259
House drains repaired, &c.	137
House drains trapped or ventilated . . .	37
Notices served	1226
Legal proceedings	5
Smoke observations	10

The Port Sanitary Authority.—No case of infectious disease was reported in 1906. It has not been found necessary to use the hospital since 1894, but nevertheless it is kept in constant readiness. During the year, the boarding station for infected ships was fixed off the entrance to the River Wyre, on the north side of Lune Deep. The Inspector visited all the vessels, and when defects were discovered verbal notices to the various captains sufficed to have them remedied.

Formby.—(Area in acres, 5,427; Estimated Population, 6,325).—*Medical Officer of Health*, FRANCIS CARTER, L.R.C.P.E.; *Salary*, £30.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	19·7	10·5	0·94	0·79	1·42	88	
1905	20·0	10·4	0·65	0·98	0·98	73	
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	—0·3	+0·1	+0·29	—0·19	+0·44	+15	

The statistics in the second Annual Report for this district are satisfactory, and vary but little from those of 1905.

Infectious Diseases.—Cases notified : diphtheria 20 (1 death), scarlet fever 8, enteric fever 3, erysipelas 4. Non-notifiable diseases : measles 1 death, diarrhœa 4 deaths. Diphtheria, generally of a mild form, was, together with measles, prevalent during the spring and autumn, and it was found necessary to close two schools on account of these diseases. Visits were paid to premises where diphtheria had occurred, and in each instance insanitary conditions, chiefly relating to the close proximity of cesspools to the houses, were found.

Hospital Accommodation.—An arrangement exists with Birkdale to treat cases from this district at their hospital on payment of a weekly sum per patient. Cases treated : diphtheria 16 (1 fatal), scarlet fever 1, enteric fever 1.

Disinfection.—Steam apparatus at Birkdale available.

Water Supply obtained from the Southport Water Board. The quality is good, but the water is very hard.

Sewerage, Scavenging, &c.—"The sanitary state of the district cannot be said to be satisfactory until it is efficiently sewered." The whole of the houses are drained into cesspools situated, in a great many instances, too near dwellings. Seventy-eight cesspools found to be defective were cleansed, repaired, or recovered. Until the completion of a sewerage system some steps should be taken to remove the contents of cesspools from the neighbourhood of dwelling-houses. Ninety-nine defective drains were discovered by means of the water or smoke test. "Considerable progress" has been made during the year with the work of sewerage the district. House refuse is removed by contract.

Sanitary Inspection.—A house-to-house inspection of the crowded areas of the district was carried out. Two houses condemned as unfit for human habitation were

demolished. Bakehouses, slaughter-houses (2), and dairies and cowsheds are regularly visited, and their condition is regarded as "satisfactory." Seventy-six inspections of factories and workshops revealed 5 defects—all remedied. Notices served by the Inspector (Mr. Pattison) numbered 212; in 3 instances legal proceedings were instituted. Twelve smoke observations taken.

Fulwood.—(Area in acres, 2,116; Estimated Population, excluding Public Institutions, 3,807).—*Medical Officer of Health*, JOHN GARTH, L.R.C.P.I.; *Salary*, £30.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	18·1	9·4	0·52	0·26	1·83	28
1905	.....	23·3	11·6	1·29	0·64	1·94	97
Mean of 10 years							
1896-1905	.....	21·6	12·7	0·47	0·64	1·92	84
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	.....	—5·2	—2·2	—0·77	—0·38	—0·11	—69
<i>Ten Years' Average</i>	.....	—3·5	—3·3	+0·05	—0·38	—0·09	—56

The population of the public institutions in this district, namely, the workhouse, barracks, orphanage, blind home, poor law school, and sisters' home, is estimated at 2,730, and, as in previous years, in calculating the various averages, the deaths in these places (208 in 1906) are excluded. The infant rate and general death-rate are the lowest ever recorded, and the same remark applies to the birth-rate, with the exception of 1903.

Infectious Diseases.—Cases notified: scarlet fever 13, enteric fever 3, erysipelas 1. Non-notifiable diseases:

measles 2 deaths. The enteric fever cases occurred in one house and were due probably to drinking dirty water taken from a brook. In the early part of the year school closure was resorted to owing to the prevalence of measles.

Hospital Accommodation for small-pox is available at Elswick. The ordinary infectious diseases hospital—joint with Longridge and Preston (R.)—situated in this district, has not yet been opened for the treatment of cases.

Disinfection.—Hot air stove provided.

Water Supply from Bleasdale Fells is “pure and good.” Owing to the increasing demand on the existing service “the question of providing a further supply is one which will undoubtedly require very careful consideration by the Council.”

Sewerage, Scavenging, &c.—The sewage is treated by septic tanks, sprinkler filters, and sedimentation in land grips. A scheme for the provision of storm filters, automatic charging apparatus and distributors has received the sanction of the Local Government Board, and contracts have been let. “The Council have, during the last few years, spent a large sum on new sewers and ventilating same, and there is no doubt that such money has been wisely spent.” Scavenging, performed by the Authority, is well carried out. “Great improvements have been made in the streets and footpaths, old gullies and traps being replaced as required.”

Sanitary Inspection —The condition of dairies and cowsheds is “fairly good.” Dr. Garth, on personally visiting a number of these premises, suggested certain sanitary improvements, which have been or are being carried out. Four inspections of factories and workshops have been made. Notices served by the Inspector (Mr. Naylor), 5 in number, received attention.

Golborne.—(Area in acres, 1,679 ; Estimated Population, 7,000).—*Medical Officer of Health*, JAMES DOBB, L.R.C.P. ; *Salary*, £45.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	30·5	16·4	4·42	0·85	2·42	163
1905	.....	32·5	14·5	3·14	0·57	2·71	131
Mean of 10 years							
1896-1905	.....	33·6	17·1	2·73	0·54	3·04	162
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	.....	—2·0	+1·9	+1·28	+0·28	—0·29	+32
<i>Ten Years' Average</i>	.....	—3·1	—0·7	+1·69	+0·31	—0·62	+1

The birth-rate is the lowest ever recorded. The zymotic rate continues high, and is well above the County average, whilst the infant mortality showed a distinct rise as compared with last year.

Infectious Diseases.—Cases notified : diphtheria 5 (1 death), scarlet fever 12, enteric fever 1 (fatal), erysipelas 6. Non-notifiable diseases : measles 1 death, whooping cough 2 deaths, diarrhœa (including 1 death under one year from “enteritis”) 25 deaths. In October, a slight outbreak of measles occurred. An increase of 15 deaths from diarrhœa was recorded, as compared with last year, the rate from this disease alone being equal to 3·5 per 1,000 of the population.

Hospital Accommodation, joint with Leigh, &c., is provided at Astley. Cases treated : scarlet fever 2.

Disinfection.—No apparatus. Eleven houses fumigated with sulphur.

Water Supply, obtained from the reservoir belonging to the Ince Urban District Council which is situated in this district, reported as “good and ample.”

Sewerage, Scavenging, &c.—Sewage is treated on bacteria beds. The Mersey and Irwell Joint Committee had occasion to complain of two unsatisfactory samples of effluent taken from the sewage works. The Authority perform scavenging in a satisfactory manner.

Sanitary Inspection.—Bakehouses and slaughter-houses—regularly inspected—were found in a sanitary condition, and the dairies and cowsheds satisfactory, with the exception of one which is now receiving attention. Thirty-two inspections of factories and workshops were made. The notices served by the Inspector numbered 59, of which 56 were complied with.

Gorton.—(Area in acres, 1,147; Estimated Population, 33,000).—*Medical Officer of Health*, A. W. MARTIN, L.R.C.P., D.P.H.; *Salary*, £120.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	33·8	17·4	3·72	1·33	3·03	165
1905	.....	33·7	18·5	3·06	1·16	3·96	170
Mean of 10 years							
1896-1905	.....	34·5	19·3	3·80	1·25	3·78	197
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	.....	+0·1	−1·1	+0·66	+0·17	−0·93	−5
<i>Ten Years' Average</i>	.....	−0·7	−1·9	−0·08	+0·08	−0·75	−32

The birth-rate remains practically the same as last year, but there is a reduction in the death-rate, which is the lowest recorded for the district since 1894. The Ward death-rates were as follows:—St. James' Ward 17·0, Town Hall Ward 19·5, and Abbey Hey Ward 15·4, and the zymotic rates were

3·5, 4·4, and 2·9 per 1,000 respectively. The infantile mortality rate, although lower than the previous year, is still high, and Dr. Martin says “the vast importance of breast-feeding for infants cannot be over-estimated for combating the slaughter of infant life ; bottle feeding is but another name for the slaughter of the infants, and an acknowledgment of the physical degeneration of the women of this generation.”

Infectious Diseases.—Cases notified : diphtheria and membranous croup 27 (6 deaths), scarlet fever 185 (3 deaths), enteric fever 41 (4 deaths), erysipelas 20, puerperal fever 1 (fatal). Non-notifiable diseases : measles 14 deaths, whooping cough 16 deaths, and diarrhœa (including 3 deaths under one year from “enteritis”) 80 deaths. Scarlet fever was more prevalent than usual, but of a very mild type. Only 4 per cent. of the scarlet fever patients were removed to hospital, as Dr. Martin has little faith in the hospital isolation of this disease as a means of curtailing its spread. Diarrhœa was prevalent during the summer and autumn, and a special report on the subject was prepared. “Of the 75 deaths which occurred from July 13th to August 25th, 60 were in houses of the privy midden type, and 15 in houses with water-closets. The enquiries bring out very forcibly the influence of privy middens upon the disease, and consequently the effect that particular system of disposal of sewage has upon the infantile mortality of the nation. The difference in the mortality between the privy middens and water closets is even greater than indicated by the figures, as in the case of water closet houses infected by the disease, more than one-half of them were in close proximity to privies.”

Hospital Accommodation.—A small-pox hospital is provided. An arrangement with the Stockport and Manchester Corporations exists for the treatment of other cases of infectious disease. Cases treated : scarlet fever 8, enteric fever 14 (1 death), and erysipelas 1. The Medical Officer of

Health points out that the provision of hospital accommodation, principally for typhoid fever, will have to be seriously considered by the Council at an early date to meet the ever-increasing needs of a rapidly growing township.

Disinfection.—Steam apparatus at the small-pox hospital available. During the year 285 rooms were disinfected by chlorine, sulphur, or formaldehyde.

Water Supply good, obtained from the Manchester Corporation.

Sewerage, Scavenging, &c.—The Mersey and Irwell Joint Committee have had occasion to complain of the pollution of Gore Brook by effluent from the sewage works, and the question of carrying out additional works is at present under consideration. Portions of Gore Brook and Gorton Lane streams were cleansed of rubbish during the month of March. Scavenging, undertaken by the Council, is well and efficiently carried out. A refuse destructor is provided.

Sanitary Inspection.—Bakehouses, slaughter-houses, and premises where offensive trades are carried on have been regularly visited in order to ensure requisite cleanliness. Dairies and cowsheds have received attention, and there is a marked improvement in the sanitary condition of same. Factories and workshops came under observation, 93 visits and inspections being made, with the result that 6 defects were found and remedied. Eighty-three privy middens were converted to the water carriage system. Seizures of food unfit for human consumption were made on several occasions. Ten canal boats passing through the district were subjected to the necessary inspection. The Inspector (Mr. Cheetham) reports on nuisances abated after the service of 179 notices, including yards repaired 95, yard drains relaid 81, midden doors provided or repaired 69, &c. Smoke observations numbered 57.

Grange-over-Sands.—(Area in acres, 1,540 ; Census Population, 1,993).—*Medical Officer of Health*, G. H. PATTERSON, M.R.C.S., D.P.H. ; *Salary*, £30.

Vital Statistics.

		PER 1,000 OF POPULATION.					
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	.....	12·0	13·5	nil.	1·50	2·00	41
1905	.....	11·0	14·5	0·50	2·50	2·50	45
Mean of 10 years							
1896-1905	.....	12·0	11·2	0·38	1·79	1·48	86
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>		+1·0	−1·0	−0·50	−1·00	−0·50	−4
<i>Ten Years' Average</i> ..		+2·3	−0·38	−0·29	+0·52	−45	

If the deaths of 4 visitors occurring in this district were excluded from the mortality statistics, the death-rate would be reduced to 11·5 per 1,000 of the resident population. Only 1 death under one year was recorded.

Infectious Diseases.—One case of diphtheria was the only notification received during the year under report. Non-notifiable diseases: no death. It cannot be definitely stated how the diphtheria case originated: an examination of the premises (a lodging-house) revealed a good many defects—afterwards remedied—but it could not be attributed to any of these.

Hospital Accommodation.—Nil. The Medical Officer of Health strongly recommends that, if it is not desirable at the present juncture to provide separate accommodation, an arrangement should be made with the Ulverston Joint Hospital Board to treat urgent cases from this district at their sanatorium. The case of diphtheria, referred to above, was, at the request of the medical attendant, removed to this sanatorium.

Disinfection.—No apparatus.

Water Supply, described as excellent, is obtained from reservoirs in the Ulverston Rural District. From the most elevated parts of the district complaints were received regarding deficient pressure.

Sewerage, Scavenging, &c.—Sewage is discharged into the sea. Several extensions of sewers have been made in Charney Road, Kent's Farm, &c. The removal of house refuse, undertaken by the Council, is efficiently performed.

Sanitary Inspection.—The 7 bakehouses (2 underground) and one slaughter-house are kept in "good order." The Council, on the 5th November, 1906, adopted regulations under the Dairies, Cowsheds, and Milkshops Order, 1885. The condition of the premises affected is, on the whole, "fairly good." Factories and workshops received 296 inspections. Three privies have been converted to water closets. The Inspector served 5 notices.

Great Crosby.—(Area in acres, 1,907 ; Estimated Population, 11,212).—*Medical Officer of Health*, W. S. LIMRICK, L.R.C.P.E. ; *Salary*, £60.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	20·1	8·2	0·53	0·71	1·33	75
1905	.....	20·4	9·9	0·39	0·48	1·37	71
Mean of 10 years							
1896-1905	.....	20·3	11·2	0·91	0·66	1·84	115
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>	.....	—0·3	—1·7	+0·14	+0·23	—0·04	+4
<i>Ten Years' Average.</i>	.....	—0·2	—3·0	—0·38	+0·05	—0·51	—40

The death-rate is the lowest ever recorded, except 1898,

when it was the same. The infant rate is also well below the past 10 years' average. Cards relative to the feeding and care of infants have been distributed in those quarters where such guidance is requisite and necessary.

Infectious Diseases.—Cases notified : diphtheria 11 (1 death), scarlet fever 18, enteric fever 4, erysipelas 5. Non-notifiable diseases : whooping cough 1 death, diarrhœa (including 2 deaths under one year from “enteritis”) 4 deaths.

Hospital Accommodation.—By arrangement with Liverpool, cases from this district can be removed to the City hospitals, at a charge of one guinea per week per patient. Cases treated : diphtheria 3 (1 death), scarlet fever 2, enteric fever 1.

Disinfection.—The “gas stove” has been used on 26 occasions. Rooms fumigated numbered 34.

Water Supply.—The Liverpool Corporation water is used throughout the whole of the district.

Sewerage, Scavenging, &c.—Sewage is discharged into the sea. The smoke test was applied to drains 304 times. The removal of house refuse is done by the Council, instead of by contract as in the past, and it is proving a very satisfactory arrangement.

Sanitary Inspection.—The condition of bakehouses (2 underground) and dairies and cowsheds is “very good.” Forty-eight inspections of factories and workshops were made and 4 defects found—all remedied. Two conversions to water closets were made, and there are now only 85 privy middens in the district. The Inspector (Mr. Wilson) served 137 notices, took 8 smoke observations, &c.

Great Harwood.—(Area in acres, 2,868 · Estimated Population, 13,500). — *Medical Officer of Health*, JOHN PATCHETT, L.R.C.P.E. ; *Salary*, £60.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	22·9	12·2	1·33	0·29	1·70	116
1905	.....	22·8	12·3	0·69	0·46	2·07	164
Mean of 10 years						4*	
1896-1905	.....	26·1	14·0	1·47	0·90	2·41	150

Increase or Decrease

on—

<i>Previous Year</i>	+0·1	—0·1	+0·64	—0·17	—0·37	—48
<i>Ten Years' Average</i>	—3·2	—1·8	—0·14	—0·61	—0·71	—34

The birth and death rates remain practically the same as last year, but there is a satisfactory reduction in the infantile death-rate, which, with the exception of 1903, is the lowest recorded for the past 10 years. In the opinion of Dr. Patchett, the chief cause of the high infant mortality is to be looked for in the want of proper care of the mother during the period of gestation, and for some months after the birth of the infant. The system still prevails in the district of parents carrying out their children in the early hours of the morning to be nursed for the day.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 9 (2 deaths), scarlet fever 108 (3 deaths), enteric fever 2 (1 death), erysipelas 13 (1 death), puerperal fever 1. Non-notifiable diseases : measles 5 deaths, whooping cough 2 deaths, and diarrhoea (including 2 deaths under one year from “enteritis”) 5 deaths. Scarlet fever was prevalent during the whole of the year, but principally in the earlier months, and Dr. Patchett attributes same to people

visiting at houses where the disease exists, thereby carrying infection to their own homes. In the absence of an infectious diseases hospital everything possible was done to prevent the spread of the disease. Measles became epidemic during the latter portion of the year, and it was deemed advisable to resort to school closure on this account. The whole of the schools in the district were disinfected.

Hospital Accommodation.—Nil.

Disinfection.—No proper apparatus. Houses are fumigated with formalin.

Water Supply good, obtained from Dean Clough reservoir belonging to the Acerington and District Water Board.

Sewerage, Scavenging, &c.—Sewage undergoes treatment by continuous precipitation and irrigation at the Clayton-le-Moors and Great Harwood joint works. A new boiler and steam engine has been installed for sludge pressing. Scavenging has again been satisfactorily performed by the Council's employees.

Sanitary Inspection.—Bakehouses and slaughter-houses are described as satisfactory. The registered lodging-house has been conducted in a respectable manner, but more attention to cleanliness is desired. Dairies and cowsheds have been kept under observation, and whilst some are in a fairly satisfactory condition, others require more air space, better lighting and ventilation. Eighty-four inspections of factories and workshops were made, the premises being generally found in a satisfactory condition. Instructions were given at some of the mills as to the cleansing and disinfecting and frequent flushing of the urinals and closets. Nuisances remedied amounted to 751, and notices served 67. Forty-seven smoke observations were taken.

Haslingden (Borough).—(Area in acres, 8,196; Estimated Population, 19,116).—*Medical Officer of Health*, FRANCIS J. HINDLE, L.R.C.P.E.; *Salary*, £50.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	19·8	16·5	1·56	1·36	3·60	134
1905	.....	21·3	15·4	1·01	0·58	3·30	122
Mean of 10 years							
1896-1905	.....	22·6	15·7	1·71	0·87	3·04	158
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>		—1·5	+1·1	+0·55	+0·78	+0·30	+12
<i>Ten Years' Average</i>		—2·8	+0·8	—0·15	+0·49	+0·56	—24

A decline in the birth-rate, which is the lowest ever recorded for the district, with the exception of the year 1904, is accompanied by increased mortality averages, the death-rate being higher than any year since 1898.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 4 (2 deaths), scarlet fever 2, enteric fever 14 (5 deaths), erysipelas 16 (1 death), puerperal fever 2. Non-notifiable diseases: measles 11 deaths, whooping cough 1 death, diarrhoea (including 5 deaths under one year from "enteritis") 11 deaths. One case of diphtheria was notified from a house where the disease had previously appeared. An examination of the property revealed defective drainage and an inadequate supply of water. An epidemic of measles spread throughout the Borough, commencing in the month of April and ceasing in August; closure of the schools and disinfection was carried out with satisfactory results. Dr. Hindle believes the notification of phthisis instead of erysipelas would serve a more useful purpose.

Hospital Accommodation.—No provision made for the isolation of infectious diseases, except small-pox. Negotiations are now pending with Bacup (B.) and Rawtenstall (B.) for the erection of a joint hospital, and it is hoped the project will be urged forward with as little delay as possible. Certain alterations and improvements to the small-pox hospital have been decided upon.

Disinfection.—Steam apparatus available. Twenty-one houses were fumigated.

Water Supply obtained from the Bury and District Joint Water Board. Frequent complaints have been made as to the insufficiency of the supply in the neighbourhood of High Street and Rakefoot, and complaints as to the condition of the water supplied to the inhabitants of Helmsshore have also been received. The attention of the Water Board has been drawn to same.

Sewerage, Scavenging, &c.—Sewage is treated by the bacterial process at the joint outfall works at Ewood Bridge. During the year the Mersey and Irwell Joint Committee had occasion to complain of unsatisfactory effluents. Additional filters are in course of construction. A scheme has been prepared and forwarded to the Local Government Board with a view to obtaining borrowing powers for the relaying of the sewer in the neighbourhood of West View Street, Aere Ward. Scavenging is performed in a satisfactory manner by the employees of the Corporation. The Council have not yet succeeded in obtaining a suitable site for the erection of a destructor.

Sanitary Inspection.—Bakehouses, on the whole, said to be kept in a cleanly condition. Slaughter-houses are so situated that to inspect them with any degree of satisfaction is "out of the question." The erection of a public abattoir is strongly advocated. Lodging-houses have been regularly inspected, and more attention given to the bye-laws. Attention is

called to the want of provision at these houses for escape in case of fire. Dairies and cowsheds, although subject to regulations, are not inspected. The Council are urged to see that this very necessary work is carried out. Inspections of factories and workshops resulted in 22 defects being remedied. At many of these places improved closet accommodation has been provided. The Inspector (Mr. Hoyle) reports that 47 pail closets were altered to the waste-water system. Notices served for nuisance abatement numbered 145. Twenty-eight smoke observations were taken.

Haydock.—(Area in acres, 2,411; Estimated Population 9,850).—*Medical Officer of Health*, ARTHUR DOWLING, L.R.C.P. (Edin.); *Salary*, £60.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	37.1	15.5	3.24	0.40	2.74	153
1905	.....	39.3	18.9	4.41	0.71	3.58	145
Mean of 10 years							
1896-1905	.....	38.9	16.7	3.31	0.82	2.80	156

Increase or Decrease

on—

<i>Previous Year</i>	—2.2	—3.4	—1.17	—0.31	—0.84	+8
<i>Ten Years' Average</i>	—1.8	—1.2	—0.07	—0.42	—0.06	—3

The birth-rate is the lowest recorded for six years, but is still much above the County average. The general death rate compares favourably with 1905, and the zymotic rate shows an appreciable diminution, but is still high.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 9 (1 death), scarlet fever 10 (1 death), enteric fever 34 (3 deaths), erysipelas 11 (1 death), puerperal

fever 1. Non-notifiable diseases : whooping cough 4 deaths, diarrhoea (including 6 deaths under one year from " enteritis ") 23 deaths. The bulk of the enteric fever cases occurred during the months of August, September, and October, and, as in several previous years, West Ward was the chief sufferer. Dr. Dowling says " the climatic conditions of the year were distinctly favourable to the spread of enteric fever, for an autumnal season, associated with a high air temperature, and a deficient rainfall, generally entails the occurrence of an epidemic in 'infected areas' or areas where the existence of privy middens causes the surrounding earth to become so polluted as to form a potential breeding ground for the germs of the disease." The abolition of the privy midden system is evidently the first step towards the attainment of public cleanliness, and the Council should see to it. Dr. Dowling made a thorough house-to-house inspection of the area affected, and framed the following recommendations, which have been acted upon :—" the efforts of the Sanitary Authority should be directed towards the improvement of all privy ashpits in the older houses. At the same time the importance of frequent scavenging cannot be too strongly impressed upon the Council, even when there is no infectious sickness in the neighbourhood, and in the matter of the scavenging of these ashpits, the material ought to be removed directly from the ashpits into the earth, so as to prevent any soil pollution in the passage, and this work should be carried out at night." The Council are also advised to see that all back passages and yards are drained and put in a thoroughly clean and sanitary condition and kept so. Diarrhoea was very prevalent and alone responsible for a death-rate of 2.33 per 1,000 of the population. Eighteen deaths occurred amongst infants under one year of age, the illness no doubt in many cases being due to errors in feeding. Copies of the County Council circular on the feeding and care of infants were distributed, and also a handbill drawing special attention

to the fact that sterilized humanized milk could be obtained for hand-fed infants at the Infant Milk Dépôt, St. Helens, and strongly recommending its use. Dr. Dowling advises the Council to make an arrangement with the St. Helens Corporation so that a daily supply of their prepared milk could be obtained in Haydock. Measles was not prevalent, but it is suggested that arrangements might with advantage be made for the voluntary notification of the first case of this disease in a household.

Hospital Accommodation. A retaining fee—minimum £120 per annum—is paid for the use of 13 beds at the St. Helens Borough sanatorium, and the Old Whint hospital is available for small-pox. Cases treated : diphtheria 1, scarlet fever 5 (1 death), enteric fever 31 (3 deaths).

Disinfection.—The steam apparatus at St. Helens is available. Houses (40) were fumigated with sulphur.

Water Supply obtained from the Liverpool Corporation reservoirs at Rivington. In case of emergency a supply can be procured from the Lime Pits, Haydock.

Sewerage, Scavenging, &c.—At present the sewers discharge their contents mainly into ditches and water-courses. The Council has in hand a scheme for a system of sewers, with effective arrangements for purifying the effluent. Commencement has been made in the easterly portion of the district, and this part of the scheme would probably have been completed had not an unforeseen difficulty arisen with regard to the acquisition of the necessary land for the purification works. The Sewerage Sub-Committee have for some time been considering a scheme for the laying of intercepting sewers, and the construction of sewage disposal works for the remaining portion of the district. The smoke test was applied to 67 house drains, 13 of which were found to be defective. Scavenging has been carried out by the workmen of the Authority in a satisfactory manner.

Sanitary Inspection. — Bakehouses, slaughter-houses, dairies and cowsheds are in good condition and clean. Factories and workshops received 42 visits, and only 2 serious defects were noted. During the year considerable headway has been made in putting the old type of privy midden on a more modern principle. The Inspector (Mr. Dickinson) served 94 notices, and secured the abatement of 337 nuisances.

Heaton Norris.—(Area in acres, 1,619 ; Estimated Population, 10,844).—*Medical Officer of Health*, F. W. JORDAN, M.D., D.P.H. ; *Salary*, £60 (no claim).

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	15·7	9·8	1·10	0·36	1·38	122
1905	.....	13·9	9·8	0·36	1·38	1·84	86
Mean of 10 years							
1896-1905	.....	15·2	10·5	0·79	0·69	1·87	121
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	.....	+1·8	..	+0·74	—1·02	—0·46	+36
<i>Ten Years' Average</i>	.....	+0·5	—0·7	+0·31	—0·33	—0·49	+ 1

The various rates differ but fractionally as compared with the averages of the past 10 years. The birth-rate, although a little higher than in 1905, is still well below the County average ; the Heaton Mersey division of the district, however, attained a rate equal to 28·5.

Infectious Diseases.—Cases notified : diphtheria 5, scarlet fever 18, enteric fever 2, erysipelas 8 (1 death). Non-notifiable diseases : whooping cough 4 deaths, diarrhoea (including 4 deaths under one year from " enteritis ") 8 deaths.

In April, mumps and measles were prevalent, and owing to the large number of cases of the latter disease, it was found necessary to close an infant school in Heaton Chapel for one week. The Medical Officer recommends the adoption of a system of voluntary notification of phthisis.

Hospital Accommodation.—By arrangement with Salford, cases can be removed to the Corporation's sanatorium at Weaste. Cases treated : scarlet fever 7.

Disinfection.—The steam apparatus at the hospital available. Fifty-two rooms disinfected.

Water Supply obtained from Stockport. The quality is "far from good," and this matter is at present the subject of investigation.

Sewerage, Scavenging, &c.—Sewage is treated by precipitation and filtration. The smoke test was applied to 43 drains. Scavenging, carried out by the Authority, gives satisfaction.

Sanitary Inspection.—The whole of the district was periodically inspected and occasionally house-to-house inspections were made. Bakehouses (9) and slaughter-houses (2) are fairly well kept. One underground bakehouse was the subject of complaint, and is now being dealt with by the Council. Dairies and cowsheds have been regularly inspected, and improvements were noticed in the way of cleansing and limewashing. Visits to factories and workshops numbered 105 ; 18 defects were found, of which 16 have been remedied. Seventeen conversions of privy middens to water closets took place. The Inspector (Mr. Cunliffe) served 180 notices, secured the abatement of 309 nuisances, took 8 smoke observations, &c. Meteorological statistics are appended to the report.

Heysham.—(Area in acres, 1,835 : Estimated Population, 3,977).—*Medical Officer of Health*, RICHARD HERD, B.A., B.C. ; *Salary*, £20.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	16·0	12·0	0·25	0·25	1·25	109
1905	21·6	16·0	0·88	0·29	2·07	109
Mean of 7 years						
1899-1905	21·1	13·1	0·89	0·66	1·27	127
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	—5·6	—4·0	—0·63	—0·04	—0·82	..
<i>Seven Years' Average</i> —	5·1	1·1	0·64	0·41	0·02	—18

All the mortality rates are below the averages of the past decade, and excepting the infantile mortality—which is exactly the same—lower than the averages of 1905. The birth-rate is the lowest recorded for some years.

Infectious Diseases.—Cases notified : diphtheria 3, scarlet fever 9, enteric fever 2 (1 death), erysipelas 2. Non-notifiable diseases : no death. Dr. Herd believes that more cases of diphtheria would have occurred but for the fact that the Council gave him permission to have the throat membranes examined in all suspected cases of this disease. Two cases of scarlet fever took place amongst visitors. An outbreak of chicken-pox occurred in the Sandylands Schools in November, but was subsequently found to be much less extensive than was at first feared, all the cases occurring in the infant department. Beyond keeping children living in infected houses from attending school no action was found necessary.

Hospital Accommodation is provided at the Council's own

hospital (14 beds). It has not been necessary to open the additional building erected last year. Cases treated : scarlet fever 5.

Disinfection.—The steam apparatus of the Lancaster Corporation is available. Houses are disinfected with formalin. The Medical Officer would like "to see the Council in possession of a steam disinfecter."

Water Supply. "plentiful and good," is obtained from the Lancaster Corporation. Dr. Herd again deprecates the use of a pump by several houses in Lower Heysham, owing to the liability of contamination of the water, but the Council have taken no action.

Sewerage, Scavenging, &c.—Sewage is carried into tidal waters. Scavenging is satisfactorily performed by the Authority. The provision of a refuse destructor is strongly advocated, as at present refuse is simply thrown into disused claypits on the outskirts of the district.

Sanitary Inspection.—Attention is again drawn to the insanitary condition of some of the houses in Lower Heysham. "The Council has replaced some of the earth closets by water closets, which is a great improvement, but much more might be done in this direction. There is still one earth closet, which is being used by six separate families." Many of the dwellings in question are scarcely fit for human occupation. With the above exception the house accommodation of the district is satisfactory. The condition of bakehouses and slaughter-houses is "good." Cowsheds on the whole are well kept, and have plenty of light, ventilation, and air space, but none of the defects mentioned last year have yet been remedied. Workshops are kept in a "sanitary condition." The Inspector (Mr. Miller) served 42 notices for the abatement of a similar number of nuisances.

Heywood (Borough).—(Area in acres, 3,660 ; Estimated Population, 26,599).—*Medical Officer of Health*, H. H. I. HITCHON, M.R.C.S. ; *Salary*, £100.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	22·8	18·0	2·74	1·01	3·27	173
1905	21·7	17·1	1·70	1·32	3·37	118
Mean of 10 years						
1896-1905	22·9	18·3	2·06	1·95	3·89	169

Increase or Decrease

on—

<i>Previous Year</i>	+1·1	+0·9	+1·04	−0·31	−0·10	+55
<i>Ten Years' Average</i>	−0·1	−0·3	+0·68	−0·94	−0·62	+4

The birth-rate, although still low, is above last year's average, and practically equal to the mean of the preceding decade. The general death-rate and zymotic rate are above last year's rates, and there is a considerable rise in the infantile mortality due to the increase of deaths from diarrhœa, wasting diseases, and pulmonary diseases. Fifty per cent. of the deaths under one year of age occurred in children under the age of three months, and 80 per cent. of the latter died from diarrhœa, premature birth, congenital defects, atrophy, debility, want of breast milk, &c. The causation of these deaths might well form the subject of a careful enquiry, and as Dr. Hitchon suggests "mothers should be prevented from working in the mills during the later months of pregnancy, and for some months after the child is born, then the mothers would be more willing to adopt breast feeding."

Infectious Diseases.—Cases notified : small-pox 1, diphtheria 15 (5 deaths), scarlet fever 186 (10 deaths), enteric fever 14 (6 deaths), erysipelas 35 (1 death), puerperal fever 2

(1 death). Non-notifiable diseases : measles 8 deaths, diarrhœa (including 9 deaths under one year from " enteritis ") 44 deaths. The case of small-pox occurred in West Ward, but its origin could not be ascertained. Twelve of the 15 diphtheria cases, and the whole of the diphtheritic deaths occurred in children under 10 years of age. Dr. Hitchon says the detection of early and latent cases of diphtheria and other infectious diseases would often be obtained by a frequent inspection of the children attending the day schools, and this would lead to prompt isolation of the affected children. Scarlet fever was again very prevalent, but the majority of the cases were of a mild type, probably so mild in character that it has led to some cases being overlooked. South and West Wards were most affected. There is no hospital accommodation available, and isolation cannot be carried out satisfactorily in the cottage houses. Some of the enteric fever cases owed their origin to the want of proper precautions being taken when nursing or " visiting an infected person." In November, measles became very prevalent in West Ward, and it was considered advisable to close the infant departments of two schools. Immediately closure was adopted, there was a marked decline in the number of cases. Referring to the large number of deaths from diarrhœa amongst infants, Dr. Hitchon remarks, that a very large proportion of them were " bottle fed." Leaflets, giving directions as to feeding, &c., are given by the Registrar to every parent on the registration of a birth, but, as very often six weeks elapse between the birth and registration, much mischief has, in many cases, been done before the parent receives this information. Other handbills distributed by direction of the Health Committee refer to the exposure of infected persons or things ; directions for preventing the spread of infectious diseases ; and physical deterioration and alcoholism.

Hospital Accommodation.—For the isolation of cases of

infectious disease other than small-pox there is no provision. At Birtle, a small-pox hospital, with 24 beds, is provided, and the one case notified was treated there.

Disinfection.—Goddard, Massey, and Warner's steam apparatus is provided at the small-pox hospital. Rooms fumigated with sulphur or sprayed with formalin numbered 306.

Water Supply obtained from the Heywood and Middleton Joint Board.

Sewerage, Scavenging, &c.—Sewage is treated by precipitation and filtration at two outfall works, Botany Bay and Heap Bridge. Good progress has been made with the additional works at the former place, and six new filter beds have been completed. Scavenging is satisfactorily carried out by the Authority, the refuse being taken to the destructor.

Sanitary Inspection.—Bakehouses are described as "satisfactory," and slaughter-houses "fair." To remedy defects at the latter premises, 8 notices were required. Dairies and cowsheds are kept in a "fairly clean condition": new regulations, giving further powers for the better control of these places, are awaiting the Local Government Board's approval. As the result of 260 inspections of the factories and workshops, 42 defects were discovered and remedied. Ninety-four visits were paid to the canal wharf and 39 boats were inspected. Privies converted to the water carriage system numbered 99, and 33 pail closets were similarly altered. The Inspector (Mr. Robinson) served 740 notices, secured the abatement of 1,027 nuisances, took 53 smoke observations, &c. To abate smoke nuisances legal proceedings were required in 3 instances—in two abatement orders with costs were obtained, and in the other a penalty of 40s. and costs was inflicted.

Hindley.—(Area in acres, 2,612 ; Estimated Population, 25,625).—*Medical Officer of Health*, JAMES CHRONNELL, M.R.C.S. ; *Salary*, £100.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	32·0	16·4	3·82	0·66	3·04	159
1905	32·0	15·4	2·34	0·91	2·69	148
Mean of 10 years						
1896-1905	36·6	19·7	3·41	0·69	4·40	185

Increase or Decrease

on—

<i>Previous Year</i>.....	..	+1·0	+1·48	−0·25	+0·35	+11
<i>Ten Years' Average</i> ..	−4·6	−3·3	+0·41	−0·03	−1·36	−26

For three consecutive years the birth-rate has been exactly the same, viz., 32 per 1,000. All the mortality averages—excepting the phthisis rate—are less favourable than in 1905, but with the exception of the year named, the general death-rate is the lowest recorded for 10 years. In the attempt to reduce the infant death-rate a District Nursing Association has been formed, and “very great good has been done.”

Infectious Diseases.—Cases notified : diphtheria and membranous croup 25 (4 deaths), scarlet fever 76 (2 deaths), enteric fever 32 (3 deaths), erysipelas 25 (1 death), puerperal fever 2. Non-notifiable diseases : measles 35 deaths, whooping cough 2 deaths, diarrhoea (including 13 deaths under one year from “enteritis”) 52 deaths. Diphtheria is endemic ; since 1900 there have been cases every month. Scarlet fever was not quite so prevalent as last year, but there were probably many cases not brought to the notice of the Sanitary Officials. Two children were found in the “peeling” stage, and the Council admonished the parents. Measles and

diarrhoea both gave a deal of trouble : the former disease played havoc with the attendance of children at school, and a number of schools had to be closed. In addition to school closure Dr. Chronnell advised the exclusion from school of children under five years of age, the appointment of a temporary assistant Sanitary Inspector, and the taking of legal proceedings against some of the careless and indifferent. The Committee, however, did not see their way to give effect to these recommendations. The Midwives Act continues to give " good results."

Hospital Accommodation.—The hospital at Sandy Lane—8 beds—provided for small-pox cases has again been used for the treatment of other diseases. Cases removed : scarlet fever 1, enteric fever 15 (1 death). There is no discharge block, and convalescents have to be returned home direct from the wards ; fortunately, so far, no mishap has occurred. This district is combined under an Order of the County Council with neighbouring Authorities for the purpose of providing a small-pox hospital.

Disinfection.—Washington Lyon's steam apparatus provided at the town's yard ; this was used for the disinfection of 1,664 articles. Nine schools and 109 houses were fumigated with sulphur.

Water Supply very good, obtained from the Liverpool Corporation's reservoirs at Rivington.

Sewerage, Scavenging, &c.—Sewage is treated on two farms, Hindley Green and Platt Bridge. A scheme for new works at the latter place has been sanctioned by the Local Government Board, and loans amounting to £11,700 have also been sanctioned. The Authority undertake scavenging.

Sanitary Inspection.—Bakehouses and slaughter-houses do not call for special comment. At the dairies and cowsheds

a number of improvements have been effected, mainly as regards lighting, ventilation, and drainage. Visits to factories and workshops amounted to 392. Only 10 privies were converted to water closets during the year under report. The Inspector (Mr. Southern) served 234 preliminary and 69 legal notices for the abatement of nuisances.

Horwich —(Area in acres, 3,257 : Estimated Population, 15,976).—*Medical Officer of Health*, G. H. WHITTAKER, L.R.C.P.E. : *Salary*, £40.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	26·3	12·6	2·44	0·68	1·56	114
1905	28·5	13·5	1·69	0·50	1·95	147
Mean of 10 years						
1896-1905	31·9	14·7	1·88	0·59	2·99	143
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	—2·2	—0·9	+0·75	+0·18	—0·39	—33
<i>Ten Years' Average</i>	—5·6	—2·1	+0·56	+0·09	—1·43	—29

The mortality statistics on the whole compare favourably with the previous year, but the rate from zymotic diseases owing to the inclusion of enteritis is the highest since 1899.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 49 (6 deaths), scarlet fever 173 (6 deaths), enteric fever 10 (4 deaths), erysipelas 15 (2 deaths), puerperal fever 1 death. Non-notifiable diseases : measles 3 deaths, whooping cough 2 deaths, diarrhoea (including 14 deaths under one year from “ enteritis ”) 18 deaths. Diphtheria, associated with membranous croup, has again been rather prevalent, and scarlet fever was epidemic in the first and last quarters of the

year, assuming a greater degree of malignancy and spreading much more rapidly at the end of the year. The chief factors in the spread of scarlet fever were frequent visiting of residents to other districts where this disease was epidemic, its non-recognition in the early stage, and in some instances the concealment of cases. Measles was also epidemic during the first and fourth quarters, and school closure was resorted to with beneficial results.

Hospital Accommodation.—The joint hospital at Fall Birch was extensively used. Cases treated : diphtheria 10 (1 death), scarlet fever 142 (4 deaths), enteric fever 9 (4 deaths). A temporary small-pox hospital is available on Red Moss, and this district is one of the constituent Authorities under the Wigan and District Small-pox Hospital Order.

Disinfection.—Washington Lyon's steam apparatus provided at the hospital.

Water Supply obtained from Montcliffe, Wildersmoor, and Blackrod. A new reservoir at Marklands is nearly completed. With the exception of some turbidity, and the usual hardness, the supply has been good and plentiful.

Sewerage, Scavenging, &c.—Sewage is treated by precipitation and continuous filtration. Considerable extensions and alterations to the outfall works are in progress. Scavenging is carried out effectively by the Authority.

Sanitary Inspection.—Two insanitary houses were condemned, one subsequently being made habitable. Bake-houses, slaughter-houses, lodging-houses, and dairies and cowsheds are reported as "satisfactory." At the latter places a general improvement was noted. Dairy, &c., regulations come into force in July, 1907. Factories and workshops received 122 inspections, followed by 7 notices for the removal of insanitary conditions. Thirty-three privies were converted

to water closets. The Inspector, who served 127 preliminary and 86 statutory notices, secured the abatement of 1,299 nuisances, took "many" smoke observations, &c.

Hurst.—(Area in acres, 638; Estimated Population, 7,300).
—*Medical Officer of Health*, T. COOKE, M.R.C.S.; *Salary*, £30.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	27·6	17·3	1·50	0·68	4·93	193
1905	.....	28·4	15·2	1·23	0·68	4·24	125
Mean of 10 years							
1896-1905	.....	28·3	18·4	1·88	1·31	3·81	180
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>		—0·8	+2·1	+0·27	..	+0·69	+68
<i>Ten Years' Average</i>		—0·7	—1·1	—0·38	—0·63	+1·12	+13

The increase in the birth-rate noted last year has not been maintained. The general death-rate is not so favourable as in 1905, and a considerable rise has taken place in the infantile mortality.

Infectious Diseases.—Cases notified: small-pox 31, diphtheria 1 (fatal), scarlet fever 14 (1 death), erysipelas 2. Non-notifiable diseases: measles 2 deaths, diarrhœa 7 deaths. Small-pox of a mild type was present during eight months of the year, twenty houses being affected. In April, three day and Sunday schools were closed for a month owing to the prevalence of this disease.

Hospital Accommodation.—The whole of the small-pox cases (31) were removed to the joint small-pox hospital at Hartshead. No provision for other diseases.

Disinfection.—No apparatus. Forty-one houses fumigated.

Water Supply.—The main supply is derived from the Ashton-under-Lyne, &c., joint waterworks.

Sewerage, Scavenging, &c.—The whole of the drainage of the district goes into the Ashton Borough sewers. Scavenging is performed by the Authority.

Sanitary Inspection.—Two houses, unfit for human habitation, were condemned and closed. Bakehouses (9) and slaughter-houses (6) are in a satisfactory condition. Cowsheds—8 in number—received regular visits. At 3, the attention of the owner had to be called to certain defects. Special attention was paid to the factories and workshops. 144 inspections being made, and as a result many of the closets have been converted to the water-carriage system. Eighty-two other privies were also converted during the year. The Inspector served 178 notices for nuisance abatement, and all were complied with. Smoke observations numbered 78.

Huyton-with-Roby.—(Area in acres, 3,053 : Census Population, 4,661).—*Medical Officer of Health*, H. F. HUNT PHILLIPS, M.D. ; *Salary*, £30.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births
		Birth rate.	Death rate.	Zymotic Death rate.	Phthisis Death rate.	Respiratory Death rate.	
1906	.....	24·2	13·3	0·64	0·85	3·64	123
1905	.....	26·0	9·8	1·71	0·42	2·14	98
Mean of 10 years							
1896-1905	.....	27·1	12·7	1·13	0·59	2·62	115
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>.....—1·8 +3·5 —1·07 +0·43 +1·50 +25							
<i>Ten Years' Average</i>.....—2·9 +0·6 —0·49 +0·26 +1·02 +8							

Excepting the zymotic rate the mortality averages are

not so favourable as last year, or the mean of the preceding decade. The birth-rate is the lowest recorded since 1898.

Infectious Diseases.—Cases notified : diphtheria 10, scarlet fever 9 (1 death), enteric fever 1, erysipelas 2. Non-notifiable diseases : measles 1 death, diarrhoea 1 death. The district was free from infectious disease from January to May, then a case of enteric fever occurred, attributed to the patient eating oysters in Liverpool. Several scarlet fever cases were due to an unrecognised case being allowed to attend school.

Hospital Accommodation.—Three beds at the Whiston sanatorium are reserved for the use of this district. Cases treated : diphtheria 7, scarlet fever 8 (1 death).

Disinfection.—The steam apparatus at the hospital is available.

Water Supply obtained from the Liverpool Corporation.

Sewerage, Scavenging, &c.—Sewage is treated by irrigation. The Authority satisfactorily carry out scavenging.

Sanitary Inspection.—One house was condemned as totally unfit for habitation, and another was provisionally condemned until put into proper sanitary condition. Several houses at Huyton Quarry are in a bad state of repair and require early attention. Dairies and cowsheds are kept clean and well ventilated. Factories and workshops received 18 visits. Considerable trouble was experienced during the year with piggeries, and the Medical Officer of Health suggests an amendment of the bye-laws relating to these places. Fifteen notices were served for the abatement of nuisances, 12 smoke observations made, 2 privies converted to water closets, &c.

The report is in manuscript.

Ince-in-Makerfield.—(Area in acres, 2,320 ; Estimated Population, 22,860).—*Medical Officer of Health, J. H. FLETCHER, M.R.C.S. ; Salary, £100.*

Vital Statistics.

		PER 1,000 OF POPULATION					Rate of Deaths under 1 year to 1,000 Births
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	35·1	19·9	4·63	0·74	6·21	181
1905	.....	38·1	19·8	5·12	0·30	3·80	202
Mean of 10 years							
1896-1905	.....	39·1	21·6	3·66	0·54	4·99	205

Increase or Decrease

on—

<i>Previous Year</i>	—3·0	+0·1	—0·49	+0·44	+2·41	—21
<i>Ten Years' Average</i>	—4·0	—1·7	+0·97	+0·20	+1·22	—24

The birth-rate is the lowest recorded for the district, but Dr. Fletcher says he does not regard this as a cause for regret : on the contrary the reduction from 38 to 35 per 1,000 is a matter for congratulation, and he quotes the opinion of the Registrar General that “these high births being always, as they undoubtedly are, accompanied by high rates of infant mortality do not increase the population permanently, while they do imply a good deal of suffering and waste of infantile life ; and, further, it is not likely that the survivors will grow up or be as sound and healthy as the children brought into the world by later and more prudent marriage, and with some consideration as to what number of children can be adequately provided and cared for.” The general death-rate remains practically the same as last year, and the zymotic and infant rates both show reductions, but are still very high. As in 1905, the principal factors in the heavy zymotic mortality are diarrhoea, which, with “enteritis” contributed a rate equal to 2·6 per 1,000, and measles with a rate of 0·96. The respiratory rate is exceptionally high.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 14 (2 deaths), scarlet fever 81 (4 deaths), enteric fever 53 (13 deaths), erysipelas 30 (1 death), puerperal fever 1. Non-notifiable diseases : measles 22 deaths, whooping cough 5 deaths, diarrhœa (including 22 deaths under one year from “ enteritis ”) 60 deaths. The scarlet fever cases were distributed over the whole district, but mostly in South and Central Wards. Enteric fever is endemic in this district, and must cause misgivings as to the sanitary conditions of certain parts. Evidence is now being collected as to the danger of the privy midden system in regard to enteric fever, and the Council are urged to take into most serious consideration the possibility of adopting water carriage. The great difficulty in this matter is the liability of the sewers to breakage owing to mining subsidences. Measles was prevalent the whole year, but became severe in the Platt Bridge district in November and December, and in consequence, the infant departments of two schools were closed. The large amount of diarrhœa was again attributed mainly to bad social conditions, bad feeding, carelessness, and ignorance, coupled in many instances with unpaved yards and the privy midden system. Referring to puerperal fever, Dr. Fletcher remarks that there has been a good deal of improvement in the work of the midwives of the district, owing to the operation of the Midwives Act.

Hospital Accommodation.—A hospital with 28 beds—12 for small-pox—is provided, and the district is associated with neighbouring districts under an Order of the County Council for the provision of a small-pox hospital. Cases treated : scarlet fever 12, enteric fever 19 (4 deaths).

Disinfection.—Steam apparatus provided at the hospital.

Water Supply good and constant, in part from the Council's deep wells at Golborne, and in part from the Liverpool Corporation reservoir at Rivington. The well supplying

some 30 to 40 houses at Little Westwood has been improved so far as prevention of surface pollution is concerned.

Sewerage, Scavenging, &c..—“The new beds at the outfall works for the bacterial treatment of sewage have acted very well.” The method of treatment is by septic action, straining filters, and continuous filtration. Scavenging carried out by the Authority is as satisfactory as the privy midden system, and the large amount of dust blown from the considerable extent of waste bare land on the streets will allow.

Sanitary Inspection.—There is no cause for complaint as regards the bakehouses, slaughter-houses, and lodging-houses. Dairies and cowsheds—inspected from time to time—are mostly “good or fair.” One cowshed was closed on account of structural defects. Ninety-four visits were paid to factories and workshops, and 64 canal boats were examined. The Inspector served 237 notices for nuisance abatement.

Irlam.—(Area in acres, 4,620; Estimated Population, 4,800.)

—*Medical Officer of Health*, EDWIN O. JAGO, M.R.C.S. :

Salary, £20.

Vital Statistics.

		PER 1,000 OF POPULATION,					Rate of Deaths under 1 year to 1,000 Births.
		Birth rate.	Death rate.	Zymotic Death rate.	Phthisis Death rate.	Respiratory Death rate.	
1906	.....	33·1	15·2	2·08	0·83	1·66	94
1905	.....	34·0	14·8	1·91	0·85	2·76	118
Mean of 10 years							
1896-1905	.....	30·0	13·9	2·34	0·64	1·94	115

Increase or Decrease

on—

<i>Previous Year</i> ,	—0·9	+0·4	+0·17	—0·02	—1·10	—24
<i>Ten Years' Average</i> ,	+3·1	+1·3	—0·26	+0·19	—0·28	—21

The birth-rate, although fractionally lower than in the

previous year, is well above the average of the past decade. The death-rate is higher than in 1905, but the infant rate shows an appreciable reduction.

Infectious Diseases.—Cases notified: diphtheria 1, scarlet fever 31 (3 deaths), enteric fever 1, erysipelas 4, puerperal fever 1 (fatal). Non-notifiable diseases: diarrhoea 7 deaths.

Hospital Accommodation.—The Council has come to an agreement with Salford for the retention of two beds at the Corporation's hospital for cases of small-pox, a sum of £40 to be paid annually for this privilege.

Disinfection.—No proper appliances. Houses disinfected with formaldehyde gas.

Water Supply. “good and abundant,” obtained from the Manchester Corporation.

Sewerage, Scavenging, &c.—“Sewage is dealt with by intermittent filtration through osier beds, with satisfactory results.” The special work commenced last year to cope with the increased flow of sewage has been continued. The effluent channel has been lengthened, and 500 lineal yards of 6-inch underdrains laid. All the main sewers have been regularly flushed. Scavenging, as carried out by contract, gives satisfaction.

Sanitary Inspection.—House accommodation is “generally good;” during the year two houses were condemned as unfit for human habitation and closed. Bakehouses, slaughter-houses, cowsheds, factories, &c., have been inspected and found in a satisfactory condition. Eight formal notices were served by the Inspector (Mr. Kay) for nuisance abatement, all of which received attention. “Several” smoke observations taken.

Kearsley.—(Area in acres, 1,005 ; Estimated Population, 9,600).—*Medical Officer of Health*, J. C. EAMES, M.D. : *Salary*, £40.

Vital Statistics.

		PER 1,000 OF POPULATION.					
		Birth rate.	Death- rate.	Zymotic Death- rate.	Phthisis Death- rate.	Respira- tory Death rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	.....	26·9	15·8	2·70	0·93	1·97	166
1905	.....	25·5	14·5	2·52	0·63	1·78	172
Mean of 10 years							
1896-1905	.....	28·9	16·9	2·66	0·99	2·96	189

Increase or Decrease

on—

<i>Previous Year</i>	+1·4	+1·3	+0·18	+0·30	+0·19	—6
<i>Ten Years' Average</i>	—2·0	—1·1	+0·04	—0·06	—0·99	—23

A slight improvement in the infant rate as compared with 1905 is accompanied by increases in the other mortality averages. With the exception of last year the birth-rate is the lowest ever recorded.

Infectious Diseases.—Cases notified : diphtheria 5 (1 death), scarlet fever 13, enteric fever 7 (2 deaths), erysipelas 3, continued fever 1 (fatal). Non-notifiable diseases : measles 2 deaths, whooping cough 3 deaths, diarrhoea (including 5 deaths under one year from "enteritis") 17 deaths. A school at Kearsley Moor had to be closed in December on account of measles. Dr. Eames believes that so long as this is the only step taken to prevent its spread any improvement in this direction can hardly be expected. Diarrhoea was more prevalent than usual in the autumn, and circulars giving advice relating to this disease and also as to infant feeding were again issued. In the clean tidy houses where least required the Medical Officer found the pamphlets carefully preserved, but no signs of them could be found where they would have been

of immense service if only kept, and the suggestions given therein carried out.

Hospital Accommodation.—A retaining fee is paid for the use of 3 beds at the Ladywell Sanatorium of the Salford Corporation. Cases treated: scarlet fever 1, enteric fever 1.

Disinfection.—No apparatus. Forty rooms fumigated.

Water Supply. “good,” obtained from Bolton.

Sewerage, Scavenging, &c.—Sewage is treated in tanks by intermittent filtration at the “main” outfall works, and by continuous filtration at Unity Brook. The Mersey and Irwell Joint Committee have complained of unsatisfactory effluents from both works. New filters have, however, been constructed at Unity Brook. Scavenging is satisfactorily performed by the Authority.

Sanitary Inspection.—Two houses condemned as unfit for human habitation were closed. The condition of bake-houses and slaughter-houses is said to be “good,” while at the dairies and cowsheds apparently little care is taken to keep the animals in a cleanly condition. Fifty-two inspections of factories and workshops have been made, and the majority of defects discovered received attention. Complaint is made as to the unsatisfactory condition of certain streets with regard to paving and sewerage. Improvements have been effected at several of the schools. Privy middens converted to water closets numbered 17. The Inspector (Mr. Walsh) took 12 smoke observations, served 70 notices, and secured the abatement of 377 nuisances, including the following:—

Opening, cleaning, and flushing choked drains	13
Yards flagged or paved	72
Insanitary ashpits repaired, &c.	39

Kirkham.—(Area in acres, 857 ; Estimated Population, 3,764).—*Medical Officer of Health*, BENJ. E. JONES, L.R.C.P. (Edin.) ; *Salary*, £30.

Vital Statistics.

	PER 1,000 OF POPULATION.					
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	28·6	16·2	2·39	0·53	2·65	120
1905	26·7	20·0	3·74	0·53	1·87	180
Mean of 10 years						
1896-1905	29·0	17·4	1·36	1·09	2·63	141

Increase or Decrease

on—

<i>Previous Year</i>	+1·9	-3·8	-1·35	..	+0·78	-60
<i>Ten Years' Average</i>	-0·4	-1·2	+1·03	-0·56	+0·02	-21

The general death and infant rates have substantially decreased as compared with the previous year, whilst the birth-rate shows an increase, it being only slightly below the ten years' average.

Infectious Diseases.—Cases notified : diphtheria 4, scarlet fever 33 (2 deaths), enteric fever 5 (2 deaths), erysipelas 4, continued fever 1 death. Non-notifiable diseases : whooping cough and diarrhoea each 2 deaths. The notifications are more numerous than in any year during the last decade. Dr. Jones says this is rather difficult to account for, but he believes the condition of many backyards, along with the method of disposing of the privy and ashpit refuse, may account for a little. An outbreak of scarlet fever occurred in the early months of the year, and circulars were issued to householders giving instructions as regards isolation, &c. Measles was prevalent in epidemic form in September, October, and November, and necessitated closure of the National Schools.

Hospital Accommodation.—The Fylde joint hospital at Moss Side available for ordinary infectious diseases : small-pox cases can be removed to Elswick. Cases treated : diphtheria 3, scarlet fever 23 (2 deaths), enteric fever 2 (1 death).

Disinfection.—No proper appliances. Rooms disinfected numbered 132.

Water Supply obtained from the Fylde Water Board is described as “good.”

Sewerage, Scavenging, &c.—Sewage runs into settling tanks at Freckleton in conjunction with Wesham, and then into the River Ribble. The removal of nightsoil is in the hands of a contractor. This work could be done more efficiently if undertaken by the Authority. Dr. Jones thinks that the provision of a destructor should be considered in the near future, as the disposal of nightsoil on tips is a very unsatisfactory method.

Sanitary Inspection.—Attention is again drawn to the unsatisfactory condition of many of the houses, which are considerably below the requirements of modern times with regard to air space, &c. Bakehouses, slaughter-houses, and lodging-houses, together with dairies and cowsheds, give satisfaction. Dairy and cowshed Regulations have been adopted, but in such a modified form that they are of little use, being applicable only to newly-erected cowsheds. Two defects were noted in the factories and workshops as a result of the regular inspection of these premises. Three privy middens underwent conversion to water closets, and further progress in this direction is recommended. The Inspector (Mr. Fletcher) served 92 notices and was successful in securing the abatement of 142 nuisances.

Lancaster (Borough).—(Area in acres, 3,506; Estimated Population, excluding Public Institutions, 42,837).—

Medical Officer of Health, G. R. PARKER, L.R.C.P. (Lond.):

Salary, £170 (including £20 for the Port).

Vital Statistics.

	PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	24·7	13·2	1·49	1·02	1·40	138
1905	23·0	12·4	1·43	1·03	1·23	105
Mean of 10 years						
1896-1905	25·7	14·1	1·89	1·04	2·25	155
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	+1·7	+0·8	+0·06	−0·01	+0·17	+33
<i>Ten Years' Average</i>	−1·0	−0·9	−0·40	−0·02	−0·85	−17

A rise in the birth-rate as compared with last year is accompanied by an increase in the general death-rate, infantile mortality, &c. For the sixth successive year the death-rate has been the highest in St. Anne's and Bulk Wards. These two Wards are by far the least healthy in the Borough. The cause of this is, in the opinion of Dr. Parker, the population density, the number of narrow sunless courts and alleys, and the habits of a considerable proportion of the inhabitants. The Medical Officer of Health repeats the list given in 1905 of measures which might be undertaken with a reasonable probability of diminishing the infantile death-rate, viz. (1) the earlier notification to the Sanitary Authority of the occurrence of each birth, (2) the registration of all persons who take infants to nurse whether for remuneration or not, (3) the continuation of lectures on personal and domestic hygiene, (4) the establishment of a sterilized humanised municipal milk supply for the infants of the poor, and (5) the establishment of a crèche.

The following Table gives the birth and death rates in the various Wards :—

	Birth-rate.	Death-rate.	Zymotic rate.	Infantile mortality.
Bulk Ward	26·76	16·32	3·05	256
Castle Ward	20·46	11·76	1·00	37
John o' Gaunt Ward.	27·83	13·48	0·98	151
Park Ward	11·37	10·46	0·45	120
Queen's Ward	20·72	12·66	1·62	159
Scotforth Ward	23·90	10·94	0·65	113
Skerton Ward	30·88	11·45	1·95	122
St. Anne's Ward ..	25·05	16·22	0·60	163

Infectious Diseases.—Cases notified : diphtheria 24 (8 deaths), scarlet fever 85 (1 death), enteric fever 29 (4 deaths), erysipelas 44 (3 deaths), puerperal fever 5 (1 death). Non-notifiable diseases : measles 1 death, whooping cough 4 deaths, diarrhœa (including 8 deaths under one year from "enteritis") 46 deaths. Following on the numerous attacks (372) in 1905 the cases of scarlet fever in 1906 have naturally been far below the average. The fatality of the disease has also been light. Four cases were direct importations, and in the other 81, the disease was probably spread in the great majority of cases by personal contact. The statistics as regards enteric fever are the most favourable which have been experienced for very many years. Whooping cough and measles became prevalent at the end of the year. Diarrhœa as usual caused much trouble in the months of July, August, and September, and the Medical Officer of Health, suggests the notification during these months of all attacks of diarrhœa in children under the age of two years. The Lady Health Visitor would thus be enabled to visit the cases, and advise the mothers as to the feeding of the children. At such a time much more attention would be paid to her advice, and the seed then sown would probably bear fruit in future years, even if no immediate benefit resulted from her visits.

Hospital Accommodation.—The hospital used for the treatment of scarlet and enteric fevers contains 32 beds, and the small-pox hospital at Littlefell has 20 beds. Cases treated : scarlet fever 67 (1 death), enteric fever 21 (1 death).

Disinfection.—Washington Lyon's steam apparatus provided at the hospital was used for the disinfection of 1,778 articles.

Water Supply excellent and abundant, derived from the millstone grit.

Sewerage, Scavenging, &c.—Sewage is discharged into the River Lune without previous treatment. The sewers are fairly well ventilated and are frequently flushed. Scavenging is carried out by the Authority, and nearly all the refuse is burnt in the destructor.

Sanitary Inspection.—Some objectionable cottages were purchased by the Corporation and demolished. Fifty-two houses which were not in a sanitary condition were dealt with. The Corporation slaughter-house and four private premises are kept in a satisfactory condition. Lodging houses, on the whole, are fairly well kept, although 13 infringements of the bye-laws were noted. No important alteration in the condition of the dairies and cowsheds has taken place during 1906—they are classed as "fair." The inspection of meat is carefully performed. Of 2,978 beasts slaughtered, 26 or 0·87 per cent. were found affected with tuberculosis, and portions of the carcasses condemned. Factories and workshops have for the most part been kept in good order, the sanitary defects, 87 in number, being of a distinctly minor character. The careful manner in which the offensive trades have been conducted is certified by the fact that no complaints have been received. Eighty-seven visits to 27 canal boats revealed 9 infringements of the Acts. The Inspector (Mr. Smith) reports on the sanitary work carried out in his department :

3,418 nuisances were abated. Smoke observations numbered 15. Meteorological statistics are appended to the report.

Port of Lancaster.—The population of the Port remains the same, viz., 109, no birth or death having taken place during the year. A case of enteric fever found on one of the vessels was removed to the Lancaster sanatorium, and there proved fatal. The 228 vessels entering the Port were visited by the Inspector, and only two sanitary defects were discovered. The conditions regarding the water supply remain as before. Good water can be obtained by payment, but many of the vessels take their water from the canal basin which is unsafe for drinking purposes.

Lathom and Burscough.—(Area in acres, 13,660 ; Estimated Population, 7,632).—*Medical Officer of Health*, J. G. LAING, L.R.C.P.I. ; *Salary*, £50.

Vital Statistics.

PER 1,000 OF POPULATION.

	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	26·9	14·9	1·57	1·31	1·96	111
1905	26·5	14·0	1·85	0·53	2·65	130
Mean of 10 years						
1896-1905	30·0	15·0	1·98	0·94	2·44	138
<i>Increase or Decrease on—</i>						
<i>Previous Year</i>	+0·4	+0·9	−0·28	+0·78	−0·69	−19
<i>Ten Years' Average</i> ..	−3·1	−0·1	−0·41	+0·37	−0·48	−27

The birth and death rates show a fractional increase as compared with last year, while the zymotic and infant rates are reduced. The latter, with one exception—1903—is the lowest recorded for ten years.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 55 (1 death), scarlet fever 25, enteric fever 10 (3 deaths), erysipelas 5. Non-notifiable diseases: whooping cough 1 death, diarrhoea (including 2 deaths under one year from “enteritis”) 7 deaths. Diphtheria was present throughout the year, but more particularly so in the earlier months and at the end of the year. The low mortality is attributed to the use of antitoxin.

Hospital Accommodation is provided jointly with Ormskirk; considerable extensions have recently taken place. Cases treated: diphtheria 1, scarlet fever 8, enteric fever 4 (2 deaths).

Disinfection.—Washington Lyon’s steam apparatus provided at the hospital. Houses are fumigated with sulphur or formalin vapour.

Water Supply of exceptionally good quality is obtained by pumping from the red sandstone.

Sewerage, Scavenging, &c.—The sewage is treated at two outfall works, viz., at Westhead by continuous precipitation and double filtration, and at New Lane by continuous settlement and irrigation. Five large flushing chambers are connected to the sewers. Scavenging, carried out by contract, is quite satisfactory.

Sanitary Inspection.—Two houses were condemned as unfit for human habitation. Three others have been demolished, and 2 closed voluntarily. Bakehouses and slaughterhouses are well kept—the only underground bakehouse in the district was closed early in the year. Dairies and cowsheds are inspected on an average three times during the year. Regulations have been adopted, but they are not strictly enforced, as many of the farm buildings are old and could not be made to conform to the requirements. Factories

and workshops received 110 inspections, 17 defects being discovered. Of the 10 canal boats examined, 8 were satisfactory. The Inspector (Mr. Burrows) secured the abatement of 70 nuisances.

Lees.—(Area in acres, 203 ; Estimated Population, 3,798.)
Medical Officer of Health, JAMES CURRIE, M.B. ; *Salary*, £20.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	26·5	15·2	1·84	0·26	2·63	150
1905	.....	26·7	20·3	1·58	0·79	5·29	148
Mean of 10 years							
1896-1905	.....	25·8	19·1	1·80	1·26	3·76	187
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>		—0·2	—5·1	+0·26	—0·53	—2·66	+2
<i>Ten Years' Average</i>		+0·7	—3·9	+0·04	—1·00	—1·13	—37

The birth-rate remains practically stationary, but the death-rate shows a marked decline as compared with last year, and is the lowest ever recorded for the district.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 7 (2 deaths), scarlet fever 5, enteric fever 5, erysipelas 1, puerperal fever 1 (fatal). Non-notifiable diseases : measles 2 deaths, diarrhoea (including 1 death under one year from " enteritis ") 3 deaths.

Hospital Accommodation.—An arrangement has been made by which cases of small-pox can be removed to the Oldham Corporation hospital (Strinesdale).

Disinfection.—Infected clothing, &c., is sent to Oldham for disinfection.

Water Supply obtained from the Oldham Corporation.

Sewerage, Scavenging, &c.—Sewage is turned into the Oldham sewers, and scavenging is carried out by contract in a satisfactory manner.

Sanitary Inspection.—Bakehouses, slaughter-houses, and dairies and cowsheds are well conducted. Factories and workshops received 44 visits of inspection. Nineteen preliminary and 15 statutory notices were served calling for the abatement of nuisances.

The Report is in manuscript.

Leigh (Borough).—(Area in acres, 6,358 ; Estimated Population, 44,800).—*Medical Officer of Health*, J. KING, M.B. ; *Salary*, £140.

Vital Statistics.

PER 1,000 OF POPULATION.							
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.	
1906	30.1	16.5	3.45	0.93	2.85	173	
1905	30.0	16.4	3.11	0.90	3.31	182	
Mean of 10 years							
1896-1905	34.2	19.0	3.43	1.10	4.10	184	
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>	+0.1	+0.1	+0.34	+0.03	—0.46	—9	
<i>Ten Years' Average</i>	—4.1	—2.5	+0.02	—0.17	—1.25	—11	

The statistics presented by Dr. King vary but fractionally from those of 1905. The highest death-rates occurred in St. Joseph's and St. Paul's Wards, and the lowest in Lilford and St. Peter's Wards. The highest birth-rate occurred in St. Peter's and the lowest in Lilford Ward. The infantile mortality varied from 227 in St. Joseph's Ward to 105 in St.

Peter's Ward. The death-rate amongst children born in wedlock equalled 167 per 1,000 births, but the rate amongst illegitimate children was 545 per 1,000 births.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 16 (4 deaths), scarlet fever 335 (9 deaths), enteric fever 50 (14 deaths), erysipelas 36 (2 deaths), puerperal fever 3 (all fatal). Non-notifiable diseases: measles 35 deaths, whooping cough 3 deaths, diarrhoea (including 9 deaths under one year from "enteritis") 90 deaths. Scarlet fever, although still very prevalent, declined as compared with last year, when 418 cases occurred. In 1904 the cases notified amounted to 693. Owing to the mildness of the attack a number of cases passed unrecognised until the peeling stage, the infected child in the meantime attending school, thus further spreading the disease. Dr. King prepared a special report on the prevalence of enteric fever from which it does not appear as if there was any common cause for the outbreak. Of the 16 males attacked over the age of 14 years, 15 followed the occupation of a coal miner. Measles assumed its most serious form during the fourth quarter. School closure was not resorted to as the Medical Officer of Health is of opinion from previous experience, "that there is nothing to be gained by such closure in preventing the spread of this disease." Diarrhoea, which was exceptionally fatal, alone contributed a rate of 2 per 1,000 of the population. "Artificial feeding, climatic conditions, inattention to cleanliness, and insanitary surroundings all favour the spread of this disease."

Hospital Accommodation for all purposes provided jointly with Atherton, Tyldesley, &c., at Astley. Cases treated: scarlet fever 175 (4 deaths), enteric fever 29 (6 deaths).

Disinfection.—A new disinfectant has just been completed. Houses fumigated numbered 352.

Water Supply, obtained from the Liverpool Corporation, continues satisfactory both as to quality and quantity.

Sewerage, Scavenging, &c.—Sewage undergoes treatment at the Leigh and Atherton joint works. On two occasions—March and June—the Mersey and Irwell Joint Committee drew attention to unsatisfactory effluents. The removal of nightsoil is still carried out by contract, the refuse being conveyed to the destructor. A new destructor was completed in October last. Dr. King is of opinion that the removal of nightsoil, &c., would be much more efficiently carried out by the servants of the Corporation than as at present by contract.

Sanitary Inspection.—Three houses were condemned and closed. Bakehouses and lodging-houses are in “good” condition, and slaughter-houses “fair.” All the farms were visited, many of the cowsheds being found overcrowded. In a few cases the shippens were kept in “a filthy condition,” and milking under the existing state of things cannot possibly be carried out in a cleanly manner. The Council are advised to more stringently enforce the provisions of the Dairies, Cowsheds and Milkshops Order of 1885. One hundred and thirty privies were converted to the water-carriage system. Five hundred and sixty-four visits to factories and workshops were made, as a result of which 20 defects were remedied. The Inspector (Mr. Jackson) examined 113 canal³boats, took 95 smoke observations, served 464 notices, and secured the abatement of the following nuisances:—

Defective house drains, gullies, and sink-	
pipes	209
Defective water closets and privies	441
Deep wet ashpits raised and cemented ..	48
Houses repaired	174
Houses insufficiently ventilated	11
Ashpits repaired	78

Levenshulme.—(Area in acres, 606 ; Estimated Population, 17,200).—*Medical Officer of Health*, H. E. EDLIN, M.R.C.S.; *Salary*, £70 (no claim).

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	27·2	10·6	1·33	0·46	1·39	89
1905	.....	25·1	9·5	0·72	0·84	2·12	98
Mean of 10 years							
1896-1905	.....	27·1	11·5	1·19	0·97	1·99	120

Increase or Decrease

on—

<i>Previous Year</i>	+2·1	+1·1	+0·61	—0·38	—0·73	—9
<i>Ten Years' Average</i>	+0·1	—0·9	+0·14	—0·51	—0·60	—31

The death-rate, although a little in excess of 1905, continues very low, and is less than the average of the past 10 years. The infant rate maintains a downward tendency, and with a view to effecting a still further reduction in this mortality, cards relating to the feeding and care of infants, drawn up by Dr. Edlin, were distributed. “It is to be hoped that before long some such elementary teaching will form part of the curriculum of the elder girls in the day schools or evening classes.” The appointment of a lady health visitor is recommended.

Infectious Diseases.—Cases notified : diphtheria 17 (2 deaths), scarlet fever 63, enteric fever 7 (2 deaths), erysipelas 2, puerperal fever 3 (2 deaths). Non-notifiable diseases : measles 12 deaths, diarrhoea (including 3 deaths under one year from “enteritis”) 7 deaths. The cases of diphtheria were not confined to any special locality nor to any period. Nine bacteriological examinations were made, seven of which gave positive results and two negative. Antitoxin is supplied free of charge ; application was made for it on 19 occasions.

Scarlet fever was generally of a mild type, and in most of the cases the source of infection could not be traced. "The year was marked by an outbreak of measles which spread rapidly and assumed the proportions of an epidemic, lasting over a period of four months and affecting almost the whole of the district." School closure was resorted to in April on this account. The Medical Officer of Health describes the outbreak as the most serious since 1899, "and its incidence and spread illustrate the influence of the schools in spreading the disease, and also the difficulty of checking it when started amongst a large number of susceptible individuals. Until some further means can be found to cope with it," he says, "we shall have to be prepared to expect an epidemic of greater or less severity every two or three years." Three cases of phthisis were voluntarily notified during the year.

Hospital Accommodation.—A retaining fee is paid for the use of beds at the Baguley sanatorium, and Monsall hospital, both belonging to the Manchester Corporation. Cases treated: diphtheria 3 (1 death), scarlet fever 19, enteric fever 4 (1 fatal).

Disinfection.—Steam apparatus available. Seventy-seven rooms and 1,368 articles of clothing, &c., disinfected.

Water Supply from the Manchester Corporation has been "abundant and good."

Sewerage, Scavenging, &c.—Sewage is treated at the Withington sewage works. Numerous complaints were received respecting the foul smells arising from the ventilating grids during the hot weather. The flushing of sewers was carried out frequently and systematically. The removal of house refuse is said to have been performed by the Council's workmen in a satisfactory manner. A destructor is in operation.

Sanitary Inspection.—Dairies and cowsheds give satisfaction as also bakehouses and slaughter-houses. Inspections

of factories and workshops revealed 58 defects which were all remedied. Eighty-one conversions of privy middens to water closets were made. The Inspector (Mr. Lord) served 137 notices, secured the abatement of 688 nuisances (2 after legal proceedings), took 11 smoke observations, &c.

Leyland.—(Area in acres, 3,725 ; Estimated Population, 7,200).—*Medical Officer of Health*, E. BERRY, L.F.P.S.G. ; *Salary*, £30.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	24.4	14.0	1.80	0.97	1.94	113
1905	25.4	13.3	0.83	0.27	2.50	114
Mean of 10 years						
1896-1905	26.8	16.2	1.10	1.08	3.07	156
<i>Increase or Decrease on—</i>						
<i>Previous Year</i>	—1.0	+0.7	+0.97	+0.70	—0.56	—1
<i>Ten Years' Average.</i> ..	—2.4	—2.2	+0.70	—0.11	—1.13	—43

The birth-rate declined as compared with 1905, but the general death-rate shows an increase which is more than accounted for by the rise in the zymotic rate ; the latter is the highest recorded since 1900. For three successive years the infantile mortality has remained practically stationary.

Infectious Diseases.—Cases notified : diphtheria 1, scarlet fever 63 (2 deaths), enteric fever 6 (2 deaths), erysipelas, 8. Non-notifiable diseases : diarrhoea 9 deaths.

Hospital Accommodation provided jointly with Chorley, &c., at Heath Charnock. Small-pox cases may be sent to the Blackburn Corporation hospital at Finnington. Cases treated: scarlet fever 26, enteric fever 4 (2 deaths).

Disinfection.—No apparatus.

Water Supply good, but rather hard, obtained from Clayton-le-Woods. In order to minimise the hardness the Council contemplate obtaining a supply from Thirlmere to mix with the present water.

Sewerage, Seavenging, &c.—Sewage is treated by settlement and irrigation. In May a Local Government Board Inquiry was held into an application for sanction to borrow £3,500 for the purpose of sewerage the Dunkirk and Cowling districts, and enlarging of the outfall works. The Authority undertake seavenging.

Sanitary Inspection.—Notwithstanding repeated attention being drawn to the fact, dairies and cowsheds are not subject to regulations, and are not even inspected ! Three defects were noted during the examination of 29 factories and workshops. Only 14 notices were required for nuisance abatement.

Litherland.—(Area in acres, 857 ; Estimated Population, 14,934).—*Medical Officer of Health*, THOMAS D. PADDOCK, M.R.C.S., D.P.H. ; *Salary*, £40 (no claim).

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	37·3	15·5	3·21	0·66	2·07	111
1905	.....	33·2	12·9	1·82	1·28	2·57	138
Mean of 10 years							
1896-1905	.....	36·5	14·8	2·62	0·89	2·99	155
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	.....	+4·1	+2·6	+1·39	−0·62	−0·50	−27
<i>Ten Years' Average</i>		+0·8	+0·7	+0·59	−0·23	−0·92	−44

The birth-rate rose considerably as compared with last year, and the general death-rate is also higher. The infantile

rate again declined, and became the lowest recorded for the district. With a view to a still further reduction, Dr. Paddock recommends the teaching of elementary hygiene to the older girls in the day schools, believing such teaching would do much good in the future towards saving infant life.

Infectious Diseases.—Cases notified : diphtheria 19 (3 deaths), scarlet fever 119 (4 deaths), enteric fever 11 (1 death), erysipelas 7, puerperal fever 1 (fatal), continued fever 1. Non-notifiable diseases : measles 7 deaths, whooping cough 4 deaths, diarrhœa (including 4 deaths under one year from “enteritis”) 29 deaths. In cases of diphtheria, antitoxin and serum are supplied to medical practitioners free of cost. Scarlet fever had a greatly increased prevalence ; at one of the elementary schools a teacher was found performing her ordinary duties whilst suffering from this disease. Two of her sisters, one a teacher also, were at home in bed suffering from the disease. At the school on inspection and investigation, two children were found desquamating. Such a state of affairs would doubtless seriously spread the disease. The school was closed and thorough disinfection carried out. There was an acute epidemic of measles in the autumn, when school closure was resorted to. The School Authorities are advised to take steps for the prompt notification to the sanitary officials on the first occurrence of this disease amongst the scholars. Diarrhœa had a heavy death roll, almost equal to 2 per 1,000 of the population. Improper feeding, the result of either ignorance or indifference, uncleanness in regard to vessels containing milk, the tube feeding bottle, &c., were doubtless contributory causes. The notification of cases of phthisis is recommended.

Hospital Accommodation.—A retaining fee is paid for the use of certain beds at the Bootle Corporation hospital. Cases treated : diphtheria 3, scarlet fever 60 (1 death), enteric fever 3.

Disinfection.—The Medical Officer urges the Council to provide an up-to-date disinfecting apparatus.

Water Supply obtained from the Liverpool Corporation.

Sewerage, Scavenging, &c.—Sewage is discharged into the River Mersey. Scavenging—carried out by contract—gives satisfaction.

Sanitary Inspection.—Cleanliness has been observed as regards the majority of bakehouses, slaughter-houses, dairies and cowsheds. Factories and workshops received 35 inspections—9 defects being discovered—and 3 canal boats were examined. Eight privies were abolished, and the water-carriage system substituted. Notices issued calling for the abatement of nuisances numbered 722. Fifty smoke observations were taken—in one case legal proceedings followed, and a conviction was obtained.

Littleborough.—(Area in acres, 7,853; Estimated Population, 11,455).—*Medical Officer of Health*, G. K. PITCAIRN, M.B.; *Salary*, £50.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	20·6	13·9	1·04	0·87	1·30	144
1905	.....	19·7	13·8	0·61	0·96	1·75	111
Mean of 10 years							
1896-1905	.....	22·3	14·7	0·96	1·12	2·67	128

Increase or Decrease

on—

<i>Previous Year</i>	+0·9	+0·1	+0·43	−0·09	−0·45	+33
<i>Ten Years' Average</i> ..	−1·7	−0·8	+0·08	−0·25	−1·37	+16

As compared with last year the infant rate shows a

considerable increase, and the birth, death, and zymotic rates are fractionally higher.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 26 (4 deaths), scarlet fever 31 (1 death), enteric fever 8 (2 deaths), erysipelas 11, continued fever 1. Non-notifiable diseases : measles 4 deaths, whooping cough 1 death. Diphtheria was not prevalent in any particular part of the district ; it is significant to note that at many of the houses where these cases occurred defective drains were found.

Hospital Accommodation.—The hospital for the districts of Littleborough, Milnrow, and Wardle was opened on 16th February, 1907.

Disinfection.—Dry heat apparatus available. Houses are disinfected with formalin.

Water Supply is mainly obtained from the Rochdale Corporation. Complaints are still made from the outlying districts as to the occasional “ muddiness ” of the water. As a result of the analyses of private water supplies, two were found unsafe for domestic use, and the public supply substituted.

Sewerage, Scavenging, &c.—Sewage is treated by precipitation and filtration. The surface water drain has been extended from Victoria Street to Newall Street—a distance of about 90 yards. The Authority undertake scavenging.

Sanitary Inspection.—Periodical visits have been paid to bakehouses, slaughter-houses, dairies, &c., the sanitary conditions in each case being satisfactory. Four defects were found in the 204 inspections of factories and workshops. The Inspector served 154 notices, examined 48 canal boats, took 29 smoke observations, &c.

Little Crosby.—(Area in acres, 1,903 ; Estimated Population, 600).—*Medical Officer of Health*, EDWARD BUXTON, M.D. ; *Salary*, £10 10s. (no claim).

Vital Statistics.

		PER 1,000 OF POPULATION					
		Birth rate.	Death rate.	Zymotic Death rate.	Phthisis Death rate.	Respiratory Death rate.	Rate Deaths under year 1,000 Births
1906	.....	18·3	8·3	nil.	1·66	1·66	90
1905	.....	22·0	15·2	nil.	nil.	5·08	nil.
Mean of 10 years							
1896-1905	....	18·1	9·9	0·17	0·81	1·54	88
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>		—3·7	—6·9	..	+1·66	—3·42	+90
<i>Ten Years' Average</i>		+0·2	—1·6	—0·17	+0·85	+0·12	+2

The number of births and deaths registered during the year was 11 and 5 respectively. Only one death under one year took place.

Infectious Diseases.—Cases notified : diphtheria 5, enteric fever 1. Non-notifiable diseases : no death. It was considered prudent to close the village school in November on account of diphtheria. Improvements were effected to the drains at the house where the enteric fever case occurred.

Hospital Accommodation nil, but the question of making some provision is under consideration.

Disinfection.—By arrangement the apparatus of the Great Crosby Urban District is available.

Water Supply, “ very good,” obtained from Liverpool.

Sewerage, Scavenging, &c.—Sewage of Little Crosby village flows into a settling tank, and the sewers of the High-town section of the district empty into the River Alt. Scavenging is satisfactorily performed by the Authority.

Sanitary Inspection.—There is only one dairy, at Hightown, which is said to be in good condition. Dairy, &c., regulations have not been adopted. Three notices were served for the abatement of nuisances.

Little Hulton.—(Area in acres, 1,699 ; Census Population, 7,294.)—*Medical Officer of Health*, J. H. MARSH, L.R.C.P.E. ; *Salary*, £35.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	26·5	14·8	2·19	1·23	2·46	154
1905	28·9	14·9	1·37	1·09	3·56	90
Mean of 10 years						
1896-1905	30·0	15·0	2·00	0·83	3·84	134
<i>Increase or Decrease on—</i>						
<i>Previous Year</i>	—2·4	—0·1	+0·82	+0·14	—1·10	+64
<i>Ten Years' Average</i>	—3·5	—0·2	+0·19	+0·40	—1·38	+20

The most noticeable feature of the mortality statistics is the rise in the infant death-rate ; this increase can, however, in some measure, be accounted for by the number of children dying from congenital defects within a few hours of their birth. The nursing classes, commenced at the suggestion of the Medical Officer of Health, have been well attended.

Infectious Diseases.—Cases notified : diphtheria 13 (1 death), scarlet fever 13 (1 death), enteric fever 26 (7 deaths), erysipelas 4 (1 death), puerperal fever 1. Non-notifiable diseases : measles 1 death, whooping cough 1 death, diarrhoea (including 1 death under one year from “ enteritis ”) 5 deaths. In August and September an outbreak of enteric fever of a severe type occurred in and about Smithfold, an

area that for years has been a source of danger to the public health, and which, in the opinion of Dr. Marsh, it is almost impossible to make sanitary "short of absolute clearance." To combat the spread of phthisis, tents have been purchased for the day use of sufferers, and these have already proved of great benefit as a means not only of improving the patients' health, but of stopping the spread of infection. A permanent shelter, provided by private generosity, will shortly be available. Dr. Marsh writes, "I am pleased to report a marked improvement in the district midwives, both as regards personal cleanliness and general efficiency, and this is in a great measure due to the County Inspector's supervision and instruction to them."

Hospital Accommodation provided jointly with Farnworth, &c., Cases treated: diphtheria 3, scarlet fever 2, enteric fever 14 (4 deaths).

Disinfection.—Steam apparatus (Washington Lyon's) at hospital used.

Water Supply obtained from the Bolton Corporation.

Severage, Scavenging, &c.—Sewage is treated on two farms—Worsley Road and Ellenbrook. Scavenging, which is performed by contract, is not so satisfactory as it might be.

Sanitary Inspection.—Dairies and cowsheds are fairly satisfactory, but the Medical Officer advises the Council to revise the regulations especially as regards air-space, ventilation, and lighting. Factories and workshops generally conform to the requirements, although in some of the mills the closet accommodation is not so good as could be desired. There was little, if any, improvement in the wholesale bakehouse to which attention has previously been drawn. The Inspector (Mr. Davies) secured the abatement of 180 nuisances, took 10 smoke observations, &c.

Little Lever.—(Area in acres, 808 ; Estimated Population, 5,400).—*Medical Officer of Health*, J. S. PICKFORD, M.R.C.S. ; *Salary*, £30.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	27·4	17·5	3·14	0·37	3·88	216
1905	.....	22·2	15·3	2·61	1·12	2·80	134
Mean of 10 years							
1896-1905	.....	26·6	16·8	3·49	0·85	3·66	174

Increase or Decrease on—

<i>Previous Year</i>	+5·2	+2·2	+0·53	−0·75	+1·08	+82
<i>Ten Years' Average</i>	+0·8	+0·7	−0·35	−0·48	+0·22	+42

The mortality statistics do not compare favourably with the previous year, the infantile mortality especially being very high. Dr. Pickford states that “ in an almost exclusive industrial population like ours, where very many of the married women are employed in mills, often continuing their work until late in pregnancy and returning to work at too early a period afterwards, and where bottle-feeding of the child is the rule and suckling the exception, we cannot hope for any great improvement except as a result of some prohibitory legislation.”

Infectious Diseases.—Cases notified : diphtheria 2, scarlet fever 7, enteric fever 9 (1 death), erysipelas 3. Non-notifiable diseases : diarrhoea 16 deaths. The notifications during the year under review are the lowest in any year since the adoption of the Act. The Infectious Diseases (Prevention) Act, 1890, was adopted during the year. Dr. Pickford remarks upon the singular immunity from phthisis which coal miners, of which the greater share of the male population consists, seem to enjoy. During 15 years' practice he cannot find record of a single death from phthisis in a coal miner.

Hospital Accommodation provided jointly with Farnworth, &c. Cases treated : scarlet fever 1, enteric fever 3.

Disinfection.—The steam apparatus at the hospital is available.

Water Supply obtained from Bury. An improvement is noted in the quality of the water since the completion of the filter beds.

Sewerage, Scavenging, &c.—Sewage is treated by precipitation and filtration. The Council's workmen carry out scavenging in a satisfactory manner.

Sanitary Inspection.—Three cases of overcrowding were dealt with. The condition of bakehouses, slaughter-houses, dairies and cowsheds is said to be "satisfactory." Thirty-six visits were paid to factories and workshops, and 34 canal boats were examined. Advantage was taken in 24 instances of the financial assistance offered by the Council for the conversion of old privy middens into waste-water closets. Eighty-one notices for the abatement of nuisances were served, 79 of which were complied with.

Little Woolton.—(Area in acres, 1,389 ; Census Population, 1,091).—*Medical Officer of Health*, C. STUART PETHICK, M.B. ; *Salary*, £25.

Vital Statistics.

		PER 1,000 OF POPULATION.					
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	.....	16·4	8·2	nil.	0·91	0·91	111
1905	.....	20·1	10·9	0·91	nil.	1·84	181
Mean of 10 years							
1896-1905	.....	19·8	9·5	0·80	1·06	1·16	117
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>		—3·7	—2·7	—0·91	+0·91	—0·93	—70
<i>Ten Years' Average</i>		—3·4	—1·3	—0·80	—0·15	—0·25	—6

The mortality statistics are of a favourable character, the

general death-rate being low, and the zymotic rate nil. The infant death-rate is entirely accounted for by the deaths of two prematurely born children.

Infectious Diseases.—The township has now been free from the diseases usually notifiable since November 1904, and no death is recorded from the non-notifiable diseases.

Hospital Accommodation.—A retaining fee is paid for the use of 2 beds at the Whiston Sanatorium.

Disinfection.—Steam apparatus at the hospital used when required.

Water Supply obtained from the Liverpool Corporation.

Sewerage, Scavenging, &c.—"The conduct of the sewage farm has been satisfactory, and chemical examinations of the effluent have been periodically made with satisfactory results." A portion of the district drains into cesspools. "Scavenging and refuse disposal, as carried out by the Authority, is at present satisfactory, but the time is not far distant when some other method of disposal will be necessary, as the pits, which now act as receptacles, will become filled up."

Sanitary Inspection.—Seven notices were required as the result of inspection of the dairies and cowsheds. With reference to closet accommodation, it is stated that 154 houses are provided with water closets, 3 houses have earth closets, 4 have privies, and 52 have a combined ashpit and privy. The privies are situated in the more "rural" portion of the district attached to farmhouses, &c., in the unsewered area. The district has been periodically inspected and only three notices were required, two with respect to blocked drains, and one to remove an offensive accumulation.

Longridge.—(Area in acres, 3,285 ; Census Population, 4,304).—*Medical Officer of Health*, GEORGE JUKES, L.R.C.P. (Edin.) ; *Salary*, £20.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	28·5	17·8	2·78	1·39	2·55	219
1905	.....	28·5	17·6	0·46	1·39	2·09	130
Mean of 10 years							
1896-1905	.....	28·3	17·8	1·46	1·68	3·01	140
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>.....	..	+0·2	+2·32	..	+0·46	+89	
<i>Ten Years' Average</i>.....	..	+0·2	+1·32	−0·29	−0·46	+79	

The birth and death rates coincide almost exactly with the rates for 1905 and with the mean of the preceding ten years. The zymotic rate and the rate of deaths of infants under one year are exceptionally high, and much above the average of previous years.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 3 (2 deaths), scarlet fever 6, enteric fever 2 (1 death). Non-notifiable diseases : measles 3 deaths, whooping cough 1 death, diarrhoea 5 deaths. Measles was present in an epidemic form in January and February ; it first made its appearance in Alston, and spread with such rapidity that it was found necessary to close one of the schools for a period of three weeks, and later it was deemed advisable to close all the schools in the district.

Hospital Accommodation.—The new joint hospital at Fulwood has not yet been opened. In case of small-pox the Elswick hospital is available.

Disinfection.—No apparatus.

Water Supply good and plentiful, obtained from the Preston Corporation.

Sewerage, Scavenging, &c.—Sewage is treated by precipitation and land filtration. Scavenging, although reported as carried out “satisfactorily” by the Authority, is still capable of further improvement, especially in regard to the frequency and time for removing the refuse.

Sanitary Inspection.—Slaughter-houses have been kept fairly free from nuisance, and lodging-houses, dairies and cowsheds have given little trouble. At some of the mills the closet accommodation is not at all satisfactory—16 visits of inspection were paid to these premises. Nineteen notices were served for the removal of nuisances.

Lytham.—(Area in acres, 2,464; Estimated Population, 9,250).—*Medical Officer of Health*, J. C. FISHER, M.A., M.B.; *Salary*, £100.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	15·8	11·7	0·54	0·32	0·97	95
1905	.....	15·7	11·9	0·44	0·77	2·20	90
Mean of 10 years							
1896-1905	.....	18·4	13·1	0·75	1·00	1·95	136
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>		+0·1	—0·2	+0·10	—0·45	—1·23	+5
<i>Ten Years' Average</i>		—2·6	—1·4	—0·21	—0·68	—0·98	—41

The birth-rate is low, due in a great measure to the constitution of the population of the district, which is made up of 3,469 males and 5,781 females—the proportion of men to women being as 6 is to 10. North-East Ward had the highest

birth-rate (24·5) and North-West Ward the lowest (7·6). The general death-rate is fractionally lower than last year, and is the least recorded for 10 years. The infantile mortality shows a considerable improvement on the average of the preceding decade. "Absence of summer diarrhœa is largely responsible for this, and the fact of its absence is, in a great measure, due to the regular clearing out of ashpits and ashbins, and the frequent flushing of street gullies by the Council's workmen during the summer months."

Infectious Diseases.—Cases notified: diphtheria 4, scarlet fever 47 (4 deaths), enteric fever 6 (1 death), erysipelas 1. Non-notifiable diseases: no deaths. Three of the diphtheria cases and 3 of enteric fever were undoubtedly imported into the district. An outbreak of scarlet fever during the first half of the year was very largely due to an unrecognised case in a child who was attending school whilst peeling freely. He had obviously infected a number of his schoolfellows about whom notifications had already been received, and was the direct or indirect cause of the onset of the symptoms in others during the ensuing weeks. Dr. Fisher says "the inference may be drawn that systematic medical inspection of scholars attending elementary schools would probably prevent the recurrence of such an unfortunate incident, and would be a benefit to the children themselves and the community at large." Ninety-six per cent. of the cases of infectious diseases notified were removed to hospital.

Hospital Accommodation is provided at Moss Side (Fylde Joint) for ordinary infectious diseases, and at Elswick for small-pox. Cases treated: diphtheria 2, scarlet fever 46 (3 deaths), enteric fever 5 (1 death).

Disinfection.—Steam apparatus provided at the destructor works. One hundred and sixty rooms were disinfected with formalin.

Water Supply good, obtained from the Fylde Water Board.

Sewerage, Scavenging, &c.—Sewage is discharged—untreated—into the Ribble shortly after high water. The sewers are frequently flushed, and in 124 instances drains and sanitary fittings were tested with smoke. The Authority carry out scavenging in a satisfactory manner, the refuse being taken to the destructor.

Sanitary Inspection.—Bakehouses are airy, well ventilated and clean, and slaughter-houses are conducted as well as the conditions will permit. It is hoped that the new slaughter-houses will shortly be completed. At the cowsheds, several alterations have been effected, and on the whole, these places are in a satisfactory condition. Factories and workshops received 121 visits of inspection. Twenty-four privies have been converted to water closets—"on the grounds of the general health and reputation of the town as a health resort it is a pity that the whole of the privies could not be converted to the water-carriage system at once." The Inspector (Mr. Yates) secured the abatement of 374 nuisances. Six smoke observations were taken.

Middleton (Borough).—(Area in acres, 4,775 ; Estimated Population, 27,000).—*Medical Officer of Health*, FREDK. J. WHEELDON, M.R.C.S. ; *Salary*, £100.

Vital Statistics.

PER 1,000 OF POPULATION.

	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	20·9	16·0	1·70	1·55	2·59	136
1905	23·0	16·7	1·54	1·50	3·95	178
Mean of 10 years						
1896-1905	25·1	17·7	1·56	1·35	3·56	166
<i>Increase or Decrease on—</i>						
<i>Previous Year</i>	—2·1	—0·7	+0·16	+0·05	—1·36	—42
<i>Ten Years' Average</i>	—4·2	—1·7	+0·14	+0·20	—0·97	—30

The birth-rate, which is the lowest on record, varied from

24·4 in South Ward to 19·3 in West Ward, and 18·6 in North Ward, whilst the death-rate, which is also the lowest recorded for some years, varied from 18·6 in North Ward to 16·3 in West Ward and 13·4 in South Ward. The infantile mortality is well below the average of previous years. The distribution of instructions to mothers by means of cards on the "management of infants" is a step in the right direction, but Dr. Wheeldon says, "the direct influence and teaching of a competent nurse would be of far greater advantage."

Infectious Diseases.—Cases notified: small-pox 13, diphtheria and membranous croup 14 (5 deaths), scarlet fever 81 (3 deaths), enteric fever 5, erysipelas 15 (1 death), puerperal fever 5 (4 deaths). Non-notifiable diseases: measles 14 deaths, whooping cough 2 deaths, diarrhoea (including 3 deaths under one year from "enteritis") 22 deaths. Small-pox appeared on four separate occasions. The source of the first outbreak, early in May—one case—could not be traced. The second outbreak—5 cases—occurred at the end of the same month. Three of the persons attacked worked at the same mill, the most likely source of infection being a very mild case which had not been discovered; the other two cases occurred in a previously infected house. The third outbreak—6 cases—occurred in July. There is no doubt that several other cases had occurred in the neighbourhood affected, which, owing to the mildness of the type, had been mistaken for chicken-pox, and had consequently not come under the notice of a medical practitioner; several children were found who showed marked signs of pitting, and who were said to have recently suffered from chicken-pox. The last outbreak, in November, was a mild attack, probably acquired in Ashton-under-Lyne. Chicken-pox was very prevalent in Rhodes, Bowlee, Birch, and Tonge, and at Bowlee it became necessary to close the school as there were more than half the children away on account of this disease. Scarlet fever was present to a modified extent throughout the year—12 of the attacks

were probably due to contact with a child attending school whilst suffering from an undiscovered attack. Measles was epidemic February to April, and school closure was resorted to.

Hospital Accommodation.—By agreement, a retaining fee of £200 per annum is paid to the Rochdale Corporation for the use of the Marland hospital. Cases treated : small-pox 13, diphtheria 1, scarlet fever 17 (2 deaths), enteric fever 3.

Disinfection.—Thresh steam apparatus provided. Three hundred and ninety rooms and 860 articles were disinfected.

Water Supply good, obtained from the Heywood and Middleton Water Board.

Sewerage, Scavenging, &c.—The Order of Court obtained by the Mersey and Irwell Watershed Joint Committee has been extended, and it is hoped that early in 1907 the new tanks at the outfall works will be completed and also the new filtration area. The main sewer to couple up the Stakehill and Slattocks portion of the district is completed. The River Winee still retains its very offensive character, the smell arising from it during the summer months being abominable. The Authority carry out scavenging in a satisfactory manner. A new refuse destructor was completed in May.

Sanitary Inspection.—A great improvement is being made in the condition of a block of old back-to-back houses at Mills Hill. Twelve houses were condemned, 7 of which have already been altered and made habitable. Another group in Oldham Road have also been dealt with during the year. Bakehouses, lodging-houses, and slaughter-houses, on the whole, were found clean and in conformity with the requirements. The dairies and cowsheds, however, do not give satisfaction. The hygienic conditions under which the cows are kept are "very bad indeed." In the best of the shippens, with one or two exceptions, the admission of light is only fair,

whilst in the worst light is almost shut out. Ventilation is defective and the drainage requires alteration. The Council are urged to revise the existing regulations, and when that is done to see that they are enforced. Visits to factories and workshops revealed only minor defects. Canal boats examined—34 in number—with two exceptions complied with the Acts. Forty privies were converted to the water carriage system. The Inspector (Mr. Norton) served 281 preliminary and 370 statutory notices, and as a result 523 nuisances were abated. Eighty-seven smoke observations were taken, and the limit of five minutes emission of black smoke in the half-hour has been exceeded on 27 occasions. In eleven cases the offenders were summoned and in each case fines were inflicted.

Milnrow.—(Area in acres, 5,198; Estimated Population, 8,580).—*Medical Officer of Health*, JOHN CHADWICK, M.R.C.S.; *Salary*, £40.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	19·4	13·9	0·58	0·93	1·74	113
1905	.....	20·3	13·5	0·70	1·76	2·82	121
Mean of 10 years							
1896-1905	.....	19·9	14·8	1·19	1·26	2·86	138
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	.....	—0·9	+0·4	—0·12	—0·83	—1·08	—8
<i>Ten Years' Average</i>	.....	—0·5	—0·9	—0·61	—0·33	—1·12	—25

The birth-rate continued its downward tendency, the average for the year under review being the lowest since 1901. The death-rate, although fractionally above last year's rate, was below the average of the decade 1896-1905, and the zymotic rate was the lowest on record. The infantile mortality

is more favourable, and no doubt could be further reduced if parents would only realise the danger of taking young infants out in the early morning to be nursed by others, and of the bad habit of giving them bits of any kind of food instead of milk, which is their proper and natural food.

Infectious Diseases.—Cases notified : diphtheria 2 (1 death), scarlet fever 19 (1 death), enteric fever 2, erysipelas 12, puerperal fever 3 (2 deaths). Non-notifiable diseases : measles 1 death, diarrhœa 2 deaths. The notifications numbered less than half those of 1905. Measles invaded the district in November and was prevalent at the end of the year.

Hospital Accommodation.—The joint hospital at Smithy Bridge was opened on the 16th February, 1907.

Disinfection.—Fraser's portable hot air apparatus provided.

Water Supply obtained mainly from the Rochdale and Oldham Corporations. The outlying districts are supplied by springs.

Sewerage, Scavenging, &c.—The sewage works continue to give satisfaction. The sewers are flushed monthly. Scavenging—performed by the Council's workmen—is well carried out.

Sanitary Inspection.—Bakehouses (28), slaughter-houses (7), and dairies and cowsheds are, on the whole, in good order, a number of improvements having been effected at the shippons during the year. Factories and workshops received 52 inspections, 5 notices being required for sanitary amendments. The Inspector (Mr. Hoyle) served 21 notices for nuisance abatement, took 27 smoke observations, &c.

Morecambe (Borough).—(Area in acres, 1,801 ; Estimated Population, 13,800).—*Medical Officer of Health, J. W. WATTERSON, M.B. ; Salary, £50 (no claim).*

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	15·0	14·7	0·94	1·37	1·30	125
1905	.....	16·3	14·2	1·05	0·97	0·97	169
Mean of 10 years							
1896-1905	.....	20·3	13·5	1·28	0·68	1·95	147

Increase or Decrease

on—

<i>Previous Year</i>	—1·3	+0·5	—0·11	+0·40	+0·33	—44
<i>Ten Years' Average</i>	—5·3	+1·2	—0·34	+0·69	—0·65	—22

The birth-rate—always low in this district owing mainly to the large proportion of unmarried female adults—is below any previously recorded, whilst the death-rate is fractionally above last year's average. If the deaths of bona-fide visitors are excluded, the rate becomes 12·02, practically the same as the reduced rate of 1905. A marked reduction as compared with the previous year has taken place in the infantile mortality.

Infectious Diseases.—Cases notified : diphtheria 12 (3 deaths), scarlet fever 64 (2 deaths), enteric fever 7 (2 deaths), erysipelas 12 (1 death), puerperal fever 1 death. Non-notifiable diseases : diarrhoea (including 4 deaths under one year from "enteritis") 6 deaths. Several of the diphtheria and enteric fever attacks were imported, and others were due to a variety of causes, including exposure to sewer gas, defective drains, old privies, &c. Scarlet fever had a reduced prevalence and would have been still less in evidence but for the presence of unrecognised cases. In one instance a child, living in an area in which the disease had an unusual prevalence.

was discovered desquamating, but the case had not been notified. The parents were summoned before the Sanitary Committee and cautioned. Owing to the prevalence of this disease the school at Bare was closed for four weeks. Eighty-one per cent. of the scarlet fever cases notified received hospital isolation. The head teachers of the public elementary schools have given much help by notifying suspicious cases of infectious disease.

Hospital Accommodation consists of two blocks on the same area, the smaller for small-pox, and the larger for scarlet fever; the former has 10 beds and 1 cot, and the latter 25 beds and 2 cots. Cases treated : scarlet fever 52.

Disinfection.—The Washington Lyon's steam apparatus was used on 77 different occasions, and 190 rooms and 2 schools were fumigated and well sprayed.

Water Supply.—Very excellent in quality and more than sufficient in quantity—obtained from springs on the fells.

Sewerage, Scavenging, &c.—The system of sewage disposal is still a dual one, part passing through the closed septic tanks and part being turned directly into the sea. Much more sewage than formerly is conveyed to the septic tanks. Drain testing is frequently carried out. Scavenging—undertaken by the Authority—as a rule has been well done, but earlier removal of refuse in some parts of the town is essential. The destructor is “hard worked” all the year round.

Sanitary Inspection.—Complaints of “water in the cellar” have not yet ceased. As persistent dampness in and about houses is of vital importance, it should receive serious attention. Slaughter-houses are well kept, “nevertheless for many reasons a small up-to-date public abattoir is a desideratum.” The food and meat inspection is “not satisfactory.” Dr. Watterson suggests that his Authority

should join with neighbouring Councils and appoint a thoroughly practical person for this work. Dairies and cowsheds do not conform to the requirements, the lighting, drainage, ventilation, &c., in most cases being unsatisfactory. The sanitary condition of most of the factories and workshops has been equal to the standard required. Twenty-six privies were abolished, and the water-carriage system substituted. The Inspector (Mr. Lamb) reports on the work accomplished in his department, which included the removal of 598 nuisances.

Meteorological statistics are appended to the report.

Mossley (Borough).—(Area in acres, 3,622; Estimated Population, 13,661). — *Medical Officer of Health*, J. HEALEY, M.B.; *Salary*, £50 (no claim).

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	18·9	14·7	0·87	0·87	3·29	119
1905	.....	17·5	16·5	0·88	1·61	3·30	175
Mean of 10 years							
1896-1905	.....	21·7	15·7	1·36	1·19	3·00	135
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>		+1·4	−1·8	−0·01	−0·74	−0·01	−56
<i>Ten Years' Average</i>		−2·8	−1·0	−0·49	−0·32	+0·29	−16

An increase in the birth-rate as compared with last year is accompanied by an equally satisfactory decrease in the death-rate. All the other death-rates are also more favourable.

Infectious Diseases.—Cases notified: small-pox 1, diphtheria and membranous croup 14 (3 deaths), scarlet fever 13, enteric fever 1 (fatal), erysipelas 1, puerperal fever 1 (fatal). Non-notifiable diseases: measles 2 deaths, diarrhoea (including 3 deaths under one year from "enteritis") 6 deaths.

The majority of the diphtheria cases occurred in August, September, and October, and were mostly in Cheshire Ward. Antitoxin serum was supplied to the medical men attending these cases. Scarlet fever had a diminished prevalence, and the cases occurred mostly in the months of February and March. Measles was troublesome in Lancashire and Yorkshire Wards from August to October, and there was an epidemic of mumps, chiefly in Upper Mossley in February.

Hospital Accommodation.—A farm-house at May Hills is used as a small-pox hospital. The case notified was treated here. There is no provision for the isolation of other diseases.

Disinfection.—The Delépine Thresh steam apparatus provided at the sewage works was used for the disinfection of 229 articles. All the schools in the Borough are disinfected once every week.

Water Supply obtained from Swineshaw and Bills-o-Jacks reservoirs. The water has been examined for acidity three or four times a month, and it has always been present. No death occurred from lead poisoning due to the water supply, but at the end of March the medical men in the town reported to the Medical Officer of Health 41 cases of lead poisoning, which had occurred during the previous five months. A letter was received from the Local Government Board, dated March 20th, 1906, in which it was stated that the water “should not be delivered through leaden pipes to consumers unless any acidity possessed by such water had been completely neutralized.” Some action is being taken, but so far the water has been continually acid and takes up lead as it passes through the pipes.

Sewerage, Scavenging, &c.—A scheme is in hand for additions and alterations to the outfall works. In September the Mersey and Irwell Joint Committee complained of a polluting effluent. Scavenging, as performed by the Authority, gives satisfaction.

Sanitary Inspection.—In November, an Inspector of the Local Government Board made an examination of the town in company with the local Medical Officer. Six houses were condemned—one was made habitable and the other five were closed. Bakehouses (52) and slaughter-houses (2) are “fair,” but the state of the farms leaves much to be desired. The Inspector (Mr. Buckley) has made a special report giving full details as to the condition of each of the cowsheds. Regulations applying to these premises have been adopted, but they are not enforced. Factories and workshops received 219 visits, 15 defects being observed. Notices served amounted to 157, resulting in the abatement of 111 nuisances.

Much Woolton.—(Area in acres, 792 : Census Population, 4,731).—*Medical Officer of Health*, CHARLES V. VEREKER, L.R.C.P.I. ; *Salary*, £40.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	23·4	15·4	2·53	1·47	3·38	180
1905	24·0	14·5	2·53	1·05	2·95	96
Mean of 10 years						
1896-1905	26·8	15·3	2·12	1·21	3·05	125
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	—0·6	+0·9	..	+0·42	+0·43	+84
<i>Ten Years' Average</i>	—3·4	+0·1	+0·41	+0·26	+0·33	+55

The lowest birth-rate since 1890 is recorded. The deaths of infants under one year of age account for one-fourth of the total deaths. “The causes of this high infantile mortality are often the result of carelessness and ignorance in the rearing of the child, together with the use of unsuitable foods and dirty bottles.”

Infectious Diseases.—Cases notified : membranous eroup 1 (fatal), scarlet fever 1, enteric fever 3, erysipelas 1. Non-notifiable diseases : whooping cough 4 deaths, diarrhoea (including 4 deaths under one year from “enteritis”) 7 deaths. The cases of enteric fever were all contracted outside the district. Phthisis is notified voluntarily.

Hospital Accommodation.—A retaining fee is paid for the use of two beds at the Whiston sanatorium. Cases treated : scarlet fever 1, enteric fever 1.

Disinfection.—Fraser’s hot air apparatus available. Houses fumigated with sulphur numbered 15.

Water Supply.—Nearly the whole of the district supplied with the Liverpool Corporation water, which is of excellent quality.

Sewerage, Scavenging, &c.—Sewage from the western portion of the district flows into the Liverpool sewers at Garston ; that of the eastern portion is dealt with by broad irrigation on a farm at Halewood. Scavenging is carried out in a satisfactory manner by the Council’s employees.

Sanitary Inspection.—Under the Housing of the Working Classes Act, 13 houses were condemned and closed on account of being unfit for human habitation. Regular inspections were paid to bakehouses, slaughter-houses, dairies, factories, &c. Orders issued for sanitary amendment of houses and premises numbered 27 ; houses, &c., cleansed, repaired, and whitewashed, 16 ; house drains repaired, cleansed, and trapped, 10 ; house drains ventilated, 9 ; privies and water closets repaired, &c., 22 ; privies converted into water closets, 61½ ; new dust bins provided, 6 ; dust bins repaired, covered, &c., 19 ; water cisterns cleansed, repaired, and covered, 5 ; water pipes improperly connected with drains, &c., abolished, 7.

Nelson (Borough).—(Area in acres, 3,466 : Estimated Population, 37,000).—*Medical Officer of Health*, A. P. MILLAR, M.D. ; *Salary*, £100.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	19·5	10·6	1·64	0·70	1·97	128
1905	.....	20·7	10·3	0·44	0·61	2·22	101
Mean of 10 years							
1896-1905	.....	24·4	12·6	1·30	0·76	2·71	142
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>		—1·2	+0·3	+1·20	+0·09	—0·25	+27
<i>Ten Years' Average</i>		—4·9	—2·0	+0·34	—0·06	—0·74	—14

A low death-rate is again recorded, but it is fractionally higher than last year, and the zymotic and infant rates are not so favourable. The birth-rate is the lowest on record for the Borough.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 37 (13 deaths), scarlet fever 145 (2 deaths), enteric fever 9 (3 deaths), erysipelas 25 (3 deaths), continued fever 2 deaths. Non-notifiable diseases : measles 20 deaths, whooping cough 1 death, diarrhœa (including 12 deaths under one year from “enteritis”) 20 deaths. No information is given in the report as to the action taken to prevent the spread of contagion, except that “the usual precautions were taken in every case.”

Hospital Accommodation.—The small-pox hospital at Catlow contains 32 beds. There is no provision for other infectious diseases.

Disinfection.—The steam apparatus at the destructor works was used for the disinfection of 1,976 articles of clothing, bedding, &c., and 209 rooms were fumigated with formaldehyde vapour and sprayed with formalin.

Water Supply is obtained principally from the Ogden Valley.

Sewerage, Scavenging, &c.—Sewage undergoes treatment by septic tanks, sprinkler filters and sedimentation tanks. Considerable improvements at the outfall works have recently been introduced. Scavenging and cleansing are carried out by the Corporation staff. All ashes and refuse are burned at the destructor.

Sanitary Inspection.—Summonses were issued during the year applying for closing Orders in respect of 6 houses unfit for human habitation, but the Magistrates refused to make the Orders. Bakehouses are described as “good,” slaughter-houses, and dairies and cowsheds “very fair.” Twenty-five defects were discovered as the result of 280 inspections of the factories and workshops—all were remedied. The Inspector (Mr. Priestley) served 162 notices for the abatement of nuisances, took 24 smoke observations, &c.

Newton-in-Makerfield.—(Area in acres, 3,105 ; Estimated Population, 19,153).—*Medical Officer of Health*, HAROLD E. WATKINS, M.R.C.S. ; *Salary*, £75.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	27·6	13·4	1·93	1·20	2·76	126
1905	30·3	15·3	2·78	0·91	2·51	130
Mean of 10 years						
1896-1905	34·1	15·9	2·39	0·74	3·20	151

Increase or Decrease

on—

Previous Year.....—2·7 —1·9 —0·85 +0·29 +0·25 —4

Ten Years' Average.—6·5 —2·5 —0·46 +0·46 —0·44 —25

The birth-rate is lower than any previously recorded, and the death-rate is less than that of any year during the past decade.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 30 (3 deaths), scarlet fever 38, enteric fever 4 (2 deaths), erysipelas 40, puerperal fever 3 (2 deaths). Non-notifiable diseases: measles 3 deaths, whooping cough 7 deaths, diarrhoea (including 5 deaths under one year from “enteritis”) 22 deaths. Sixteen cases of phthisis were notified voluntarily. Wargrave Ward, which had escaped fairly well in 1905, was attacked by an epidemic of measles in the first quarter of 1906, necessitating closure of the schools implicated. Whooping cough appeared in November and December amongst the infants attending two other schools, and chicken-pox in December appeared amongst scholars in the Wargrave infant school. Closure in each case was resorted to.

Hospital Accommodation.—Arrangements for isolation of infectious cases are the same as before. Small-pox cases can be admitted to the Liverpool small-pox hospital at Fazakerley, and scarlet and enteric fevers and diphtheria to Warrington fever hospital. Cases treated: scarlet fever 20, enteric fever 2 (1 death). “Much more use might be made of hospital treatment for cases of scarlet fever and diphtheria.” The site and erection of an isolation hospital for the district “are matters not yet definitely settled.”

Disinfection.—No apparatus. Attention is drawn to the need of up-to-date appliances. Rooms fumigated numbered 241.

Water Supply generally good, but occasionally containing a slight deposit, is obtained from deep bores and wells.

Sewerage, Scavenging, &c.—At Central works the cinder filter beds were each extended 60 feet by 20 feet. The sewage treatment both at the Central and West End works is by single contact and not satisfactory. “Contact beds at both works were entirely cleaned out and the filtering material

renewed. Plans for a septic tank at the Central works are now being prepared." Complaints are made as to the pollution of Newton Lake by sewage from the Urban District of Haydock. Scavenging is carried out by the Council's workmen.

Sanitary Inspection.—For non-compliance with the slaughter-house bye-laws a summons was issued, but was withdrawn on an undertaking being given that the requirements would be complied with. Dairies and cowsheds, on the whole, are fairly satisfactory, although most of the latter are old buildings. Factories and workshops comply with the requirements of the Act relating thereto—visits to these premises numbered 271. The Inspector (Mr. Ashcroft) served 152 preliminary and 7 legal notices, secured the abatement of 306 nuisances, &c.

Norden.—(Area in acres. 5,358 ; Estimated Population, 4,000).—*Medical Officer of Health*, W. HIRST BATEMAN, M.B. ; *Salary*, £30.

Vital Statistics.

PER 1,000 OF POPULATION.

	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	18.5	12.5	0.50	0.25	1.50	148
1905	18.1	12.0	nil.	0.51	2.81	112
Mean of 10 years						
1896-1905	20.7	14.5	1.13	0.83	2.55	123
<i>Increase or Decrease on—</i>						
<i>Previous Year</i>	+0.4	+0.5	+0.50	−0.26	−1.31	+36
<i>Ten Years' Average.</i> —	2.2	−2.0	−0.63	−0.58	−1.05	+25

The birth-rate, although fractionally in advance of 1905, is, with the exception of the year mentioned, the lowest recorded during the past decade. More than half of the deaths under one year are attributed to either prematurity or some

congenital defect in the infant, and in the opinion of Dr. Bateman, "this is a point of considerable importance as showing that in all probability the most efficient means of reducing the infant rate would be care for the mother before the birth of the child rather than concentrate attention, as is usually the case, on the child after birth."

Infectious Diseases.—Cases notified : diphtheria 1, scarlet fever 7, enteric fever 1, erysipelas 5. Non-notifiable diseases : whooping cough 1 death, diarrhoea 1 death (a child under one year registered as "enteritis").

Hospital Accommodation.—A farmhouse (4 beds) at Cheesden Top is available for small-pox cases only.

Disinfection.—No apparatus. Houses, clothing, &c., are disinfected with formalin.

Water Supply for the bulk of the district is obtained from the Heywood and Middleton Water Board. In a few instances private supplies have to be relied upon.

Sewerage, Scavenging, &c.—Sewage is treated in septic tanks and on bacteria filters. Some further progress has been made in connecting up the drains to the sewer leading to the works at Midge Hall. The operation of sewerage the Greenbooth district "has at last been commenced." A charge is made by the Authority for the removal of house refuse ; Dr. Bateman "looks forward to the time when the Council will be able to undertake such work free of charge."

Sanitary Inspection.—The house-to-house inspection is still being carefully carried out. The condition of dairies and cowsheds has been slightly improved during the year, but much remains to be done to render them satisfactory. Regulations relating to these premises, although adopted, are not enforced. Inspections of factories and workshops numbered

30, notices served for nuisance abatement 10, and smoke observations 2.

The report is in manuscript.

Ormskirk. — (Area in acres, 574 ; Census Population, 6,857).—*Medical Officer of Health*, WILLIAM ANDERTON, F.R.C.S.E. ; *Salary*, £50.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	26·6	16·7	0·72	1·16	2·04	153
1905	28·5	19·3	0·87	2·33	4·66	96
Mean of 10 years						
1896-1905	32·4	20·6	1·66	1·40	5·14	141
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	—1·9	—2·6	—0·15	—1·17	—2·62	+57
<i>Ten Years' Average</i>	—5·8	—3·9	—0·94	—0·24	—3·10	+12

The birth and general death rates are the lowest ever recorded, while the zymotic rate has not been so favourable as that of the present year since 1892. The number of deaths in courts and alleys amounted to 14, a diminution of 17 compared with the total for last year. To some extent this reduction is attributable to the smaller population inhabiting the courts, but, as pointed out, the Council may also take credit for their efforts “to improve this class of property by demolishing the most insanitary areas and depopulating those in a state of bad repair.”

Infectious Diseases.—Cases notified : diphtheria 3 (2 deaths), scarlet fever 43 (1 death), enteric fever 6, erysipelas

10 (1 death), puerperal fever 1. Non-notifiable diseases : diarrhoea 2 deaths.

Hospital Accommodation is provided, jointly with Lathom and Burscough, at Green Lane for ordinary infectious diseases, and at Burscough for small-pox. Cases treated : diphtheria 1 (fatal), scarlet fever 40 (1 death), enteric fever 4.

Disinfection.—The Washington Lyon's steam apparatus at hospital utilised on 36 occasions for the disinfection of clothing, &c.

Water Supply derived from deep sand stone wells is said to be "very good."

Sewerage, Scavenging, &c.—Sewage is treated by broad irrigation on 30 acres of land. Sewers are regularly flushed and disinfected. The Authority efficiently perform scavenging. The courts and alleys are regularly swept and cleansed.

Sanitary Inspection.—Under the Housing of the Working Classes Act, 50 houses have been condemned and 18 demolished. The whole of scheme No. 1 for dealing with obstructive buildings has now been completed, and the result is a very great improvement to the neighbourhoods where these houses were situated. The Council have now completed arrangements for carrying into operation the second scheme of demolition, &c., which is to affect the property in Aughton street. Dairies and cowsheds have all been regularly inspected, the ventilation, lighting, and general sanitation being found in a satisfactory condition. In the 115 inspections of factories and workshops, 12 defects were revealed. A considerable number of wet ashpits have been abolished, and replaced either by the water-carriage system or ashpits of a modified form. Fifteen notices served secured the abatement of 22 nuisances.

Orrell.—(Area in acres, 1,617 ; Estimated Population, 6,015).—*Medical Officer of Health*, J. LLOYD JOHNSTONE, M.R.C.S. ; *Salary*, £40.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	26·6	14·4	3·15	0·33	2·32	162
1905	.....	27·4	18·0	2·20	1·10	3·10	167
Mean of 10 years							
1896-1905	.....	37·8	18·3	2·86	0·91	3·35	148
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>		—0·8	—3·6	+0·95	—0·77	—0·78	—5
<i>Ten Years' Average</i>		—11·2	—3·9	+0·29	—0·58	—1·03	+14

The birth-rate shows a very considerable diminution as compared with the average of the preceeding decade, but this is not looked upon with regret as it tends to indicate that persons are marrying at a more mature age than is usual in a township of this character, and this being so the children born will be stronger and healthier, and less likely to fall victims to the wasting diseases so common in childhood, and to diarrhoeal diseases. The general death-rate is the lowest recorded excepting 1902.

Infectious Diseases.—Cases notified : diphtheria 8 (1 death), scarlet fever 27, enteric fever 9 (1 death), erysipelas 15. Non-notifiable diseases : measles 4 deaths, diarrhoea 13 deaths. Measles was the most troublesome of the infectious diseases, and the Eastern division of the district again suffered the most. The disease assumed a severely epidemic form in September and October, and necessitated the closure of the schools for several weeks. Diarrhoea was prevalent in August and September, induced, according to Dr. Johnstone, by want of sufficient care in the preparation and quality of food.

Hospital Accommodation nil. Orrell is combined under a County Council Order with the adjoining districts for the purpose of providing a small-pox hospital.

Disinfection.—No apparatus. Twenty-four houses were fumigated.

Water Supply “good and abundant.”

Sewerage, Scavenging, &c.—Sewage is turned into the Wigan Corporation mains at Gathurst. The Authority efficiently carry out scavenging.

Sanitary Inspection.—Bakehouses and slaughter-houses offer no cause for complaint, and dairies and cowsheds are more intelligently kept than formerly. Regulations in respect of the latter are not in force, but the Council have them under consideration. Thirty visits to factories and workshops did not reveal any serious defects. The Inspector (Mr. Farrimond) reports on 107 nuisances, which were abated.

Oswaldtwistle.—(Area in acres, 4,885 : Estimated Population, 14,700).—*Medical Officer of Health*, A. E. TOWNLEY, M.B. ; *Salary*, £60.

Vital Statistics.

		PER 1,000 OF POPULATION					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	25·9	16·4	3·12	0·61	2·72	180
1905	.....	23·5	13·2	0·75	0·41	2·73	142
Mean of 10 years							
1896-1905	.....	26·7	16·3	1·60	0·74	3·59	170
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>		+2·4	+3·2	+2·37	+0·20	—0·01	+38
<i>Ten Years' Average</i>		—0·8	+0·1	+1·52	—0·13	—0·87	+10

The mortality averages do not compare favourably with

those of 1905, and the general death-rate, zymotic rate, and infantile mortality are above the mean of the preceding decade. The increases are due mainly to the large number of deaths from measles and diarrhœa.

Infectious Diseases.—Cases notified : diphtheria 10, scarlet fever 40, enteric fever 11 (3 deaths), erysipelas 14, puerperal fever 1. Non-notifiable diseases : measles 13 deaths, whooping cough 4 deaths, diarrhœa (including 8 deaths under one year from “ enteritis ”) 26 deaths. An extensive epidemic of measles occurred during the summer months, necessitating closure of the infant department of one of the schools. The epidemic gradually abated during August when the schools were closed for the summer holidays. Whooping cough was in evidence during the whole year, and diarrhœal diseases were unusually prevalent. Of the 26 deaths ascribed to the latter cause, 21 were amongst children under the age of one year. “ The extreme heat experienced during part of the summer contributed in no small measure to this heavy mortality, though apart from this, improper feeding of infants and young children must be held to be chiefly responsible for the large number of deaths.” Influenza also spread widely, a remarkable outbreak occurred at St. Mary’s School, Cocker Brook, in the month of March ; every scholar contracted the disease, and even the headmistress and teachers did not escape. In consequence, the school was closed and disinfected.

Hospital Accommodation.—The only provision is for small-pox—10 beds.

Disinfection.—Steam apparatus provided at the gas works. On five occasions all the schools in the district were thoroughly disinfected.

Water Supply is obtained from the Jackhouse and Cocker Cobbs reservoirs situate in the district. The Council obtained in July, a Provisional Order to enable them to purchase

compulsorily two farms on the gathering ground, and negotiations for the purchase of another farm are in progress.

Sewerage, Scavenging, &c.—Sewage is treated in septic tanks, followed by (a) sprinkler filters and double contact or land, (b) double contact, (c) single contact and land. Scavenging is carried out by the Council's workmen.

Sanitary Inspection.—The old insanitary property is gradually disappearing, and during the year under report a number of houses which were unfit for human habitation were condemned and elosed. A public abattoir has been provided, and the private slaughter-houses are well kept. At the cowsheds the drainage, lighting, ventilation, and general cleanliness show marked improvement, but some are not yet what they ought to be. The closet accommodation at several of the mills has been remodelled. The water-carriage system has now been adopted in 2,196 houses, 134 conversions from privies to this system taking place during 1906. The Inspector (Mr. Hunter) served 353 notices, secured the abatement of 325 nuisances, took 12 smoke observations, &c.

Padiham.—(Area in acres, 970 ; Estimated Population, 13,500). — *Medical Officer of Health*, W. SMITHIES, L.R.C.P.E. ; *Salary*, £35 (no claim).

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	25·5	15·6	2·29	0·88	2·59	159
1905	23·4	14·0	0·46	1·00	2·53	131
Mean of 10 years						
1896-1905	25·8	16·5	1·60	0·89	2·96	184
<i>Increase or Decrease on—</i>						
<i>Previous Year</i>	+2·1	+1·6	+1·83	−0·12	+0·06	+28
<i>Ten Years' Average</i>	−0·3	−0·9	+0·69	−0·01	−0·37	−25

With the exception of the phthisis death-rate all the

averages are higher than those recorded for the previous year.

Infectious Diseases.—Cases notified : diphtheria 8, scarlet fever 79 (2 deaths), enteric fever 4, erysipelas 17, continued fever 1. Non-notifiable diseases : measles 10 deaths, whooping cough 2 deaths, diarrhoea (including 13 deaths under one year from “enteritis”) 17 deaths. Cases of scarlet fever were uniformly spread over the year. Dr. Smithies considers the prevalence of this disease to a great extent due to the absence of appliances for the disinfection of infected bedding, clothing, &c.

Hospital Accommodation provided jointly with Burnley, &c., for all purposes. Cases treated : diphtheria 2, scarlet fever 45 (1 death), enteric fever 1, erysipelas 1.

Disinfection.—No apparatus. The provision of a disinfectant is essential.

Water Supply, obtained from Pendle Range, “excellent and abundant.”

Sewerage, Scavenging, &c.—Sewage is treated by continuous precipitation and irrigation. The Authority satisfactorily perform scavenging. A refuse destructor is in operation.

Sanitary Inspection.—Bakehouses give satisfaction, but the slaughter-houses “might be improved.” The provision of a public abattoir is recommended. Dairy and cowshed regulations have been adopted, but are not enforced. The Medical Officer of Health, as a result of an examination of the cowsheds, finds that practically the whole of these premises require considerable improvement as regards drainage, ventilation, air space, &c., while “some of them would even do with reconstruction.” Sixty-three inspections have been paid to factories and workshops, the majority of the 30 defects found being remedied. Eighty-four notices were served affecting 104 nuisances. Six smoke observations were taken.

Poulton-le-Fylde.—(Area in acres, 915 ; Estimated Population, 2,500).—*Medical Officer of Health*, JAMES ANDERSON, M.B. ; *Salary*, £20.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	18·4	12·8	nil.	0·80	0·80	86
1905	.....	22·4	11·2	nil.	0·12	0·24	53
Mean of 6 years							
1900-1905	.....	25·5	12·6	0·44	0·74	0·93	106

Increase or Decrease

on—

<i>Previous Year</i>	—4·0	+1·6	..	+0·68	+0·56	+33
<i>Six Years' Average</i>	—7·1	+0·2	—0·44	+0·06	—0·13	—20

The birth-rate is the lowest recorded since the creation of the Urban District in 1900. The general death and infant rates show an increase over the previous year, but the latter mortality is less than the 6 years' average.

Infectious Diseases.—Cases notified : diphtheria 1, scarlet fever 1, erysipelas 2. For the second year in succession no death has occurred from the seven principal zymotic diseases.

Hospital Accommodation for ordinary infectious diseases is available at Moss Side (Fylde Joint) and for small-pox at Elswick. No cases were removed during the year.

Disinfection.—No apparatus. Dr. Anderson advocates the provision of efficient appliances.

Water Supply—good and plentiful—obtained from the Fylde Water Board.

Sewerage, Scavenging, &c.—Sewage flows by gravitation into the tidal portion of the River Wyre at Skippool. The sewers—regularly flushed each month—are in good order, but

in streets not taken over by the Council the grids and pavements are often neglected. Seavenging, formerly performed by contract, is now carried out by the Council, and a marked improvement has been thereby effected.

Sanitary Inspection.—The cowsheds in the district are kept in very fair order, but regulations have not been adopted. Bakehouses, slaughter-houses, and lodging-houses are all in a cleanly condition. The Inspector (Mr. Moss) served 63 notices for nuisance abatement.

Preesall-with-Hackinsall.—(Area in acres, 3,232 ; Estimated Population, 1,550).—*Medical Officer of Health*, W. H. ROBINSON, M.R.C.S. ; *Salary*, £20.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	30·3	8·3	1·29	nil.	1·93	21
1905	.....	23·8	11·9	nil.	0·66	2·64	nil.
Mean of 6 years							
1900-1905	.....	26·6	13·1	1·24	0·56	1·84	51
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>		+6·5	−3·6	+1·29	−0·66	−0·71	+21
<i>Six Years' Average</i>		+3·7	−4·8	+0·05	−0·56	+0·09	−30

The birth-rate for 1906 is the highest reported since the formation of the Urban District in 1900, whilst the general death-rate, phthisis, and infant mortality are much below the six years' average.

Infectious Diseases.—Cases notified : diphtheria 2, scarlet fever 8, erysipelas 2. Non-notifiable diseases : measles 2

deaths. The latter disease spread from the neighbouring district of Fleetwood where it had been prevalent in February and March.

Hospital Accommodation.—The only provision is for small-pox at Elswick.

Disinfection.—No apparatus has yet been provided, although the Council sanctioned such expenditure in 1904. Houses are fumigated with sulphur.

Water Supply, since June 1906, obtained from the Fylde Water Board. Previously, wells and rain water tanks had to be relied upon. There are, however, a considerable number of houses not yet connected to the new mains.

Sewerage, Scavenging, &c.—It is satisfactory to note that the Council are at last taking steps in the matter of the sewerage of the district, and a suitable scheme is now in course of preparation. With the increased supply of water some means of sewage disposal is “absolutely necessary.” Scavenging is satisfactorily carried out by the Authority.

Sanitary Inspection.—With few exceptions the house accommodation of the district is good. At one of the bake-houses new drains have been laid, and the building otherwise improved. The two slaughter-houses in the district were regularly visited, and found in a clean and satisfactory state. The condition of dairies and cowsheds does not appear to be all that is desired, but it is hoped early action will be taken to improve these places, as regulations came into operation in March of the year under report. Fifty-four inspections of factories and workshops were made, and, with one exception, these premises satisfactorily complied with the requirements of the Act. Notices served numbered 77, and nuisances abated 46.

Prescot.—(Area in acres, 297 ; Estimated Population, 7,840).—*Medical Officer of Health*, S. M. GREEN, M.R.C.S. ; *Salary*, £35.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	30·2	16·1	3·18	1·27	2·29	164
1905	.....	34·7	14·8	2·44	0·38	2·57	155
Mean of 10 years							
1896-1905	.....	36·7	18·8	2·87	0·98	3·50	162
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>		—4·5	+1·3	+0·74	+0·89	—0·28	+9
<i>Ten Years' Average</i>		—6·5	—2·7	+0·31	+0·29	—1·21	+2

The birth-rate is the lowest ever recorded in the district, and with one exception (1905), the same remark applies to the death-rate. The former rate, although low for this district, is, however, well above the County average. Infantile mortality varies but little from the 10 years' average. Pamphlets dealing with the feeding of infants have been issued by the Council.

Infectious Diseases.—Cases notified : diphtheria 5, scarlet fever 29 (3 deaths), enteric fever 1, erysipelas 14. Non-notifiable diseases : diarrhœa 22 deaths. Scarlet fever was most prevalent in January and April, the first case being imported from Dublin. During the Easter vacation the schools were disinfected. In the last two months of the year cases of whooping cough and mumps occurred, but none terminated fatally.

Hospital Accommodation.—A retaining fee of £40 per annum is paid for the use of one bed at the Whiston sanatorium; no cases were removed, “home isolation being found sufficient.”

Disinfection.—The steam apparatus (Washington Lyon's) at the sanatorium available. Eighteen houses disinfected.

Water Supply obtained from the Liverpool Corporation.

Sewerage, Scavenging, &c.—Sewage is treated in settling tanks and by land filtration. Owing to the unsatisfactory condition of the farm the Council have decided to complete an effective scheme for treating the sewage on the bacterial system. The Authority satisfactorily perform scavenging.

Sanitary Inspection.—Several back-to-back houses have been made into single dwellings, and improvements as regards ventilation, &c., effected at other property. Five houses, unfit for habitation, were closed. The only underground bakehouse in the district has been much improved, and “made as sanitary as possible.” No defects were revealed during the 184 inspections of factories and workshops. Conversions of privies to water closets numbered 41, notices served 30, nuisances remedied 26. One smoke observation taken.

Prestwich. — (Area in acres, 2,494 ; Estimated Population, excluding Asylum, 10,800).—*Medical Officer of Health*, FRED STEPHENSON, L.R.C.P.E. ; *Salary*, £50 (no claim).

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	24·0	10·0	1·20	0·09	1·75	88
1905	.....	23·5	10·6	0·47	0·84	1·31	48
Mean of 10 years							
1896-1905	.....	22·4	13·5	1·44	1·02	2·46	103
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>							
		+0·5	−0·6	+0·73	−0·75	+0·44	+40
<i>Ten Years' Average</i>							
		+1·6	−3·5	−0·24	−0·93	−0·71	−15

The mortality statistics, on the whole, are again of a

favourable character, the general death-rate being the lowest on record. The birth-rate, with one exception, is the highest since 1897.

Infectious Diseases.—Cases notified : diphtheria 11 (1 death), scarlet fever 24 (1 death), enteric fever 5 (1 death), erysipelas 4, puerperal fever 1. Non-notifiable diseases : measles 4 deaths, whooping cough 3 deaths, diarrhœa (including 1 death under one year from “ enteritis ”) 3 deaths. All the enteric fever cases were imported. Measles appeared in epidemic form during November and December in the schools of Heaton Park and Rainsough Villages, but prompt school closing quickly prevented a further spread of the disease. Arrangements exist for bacteriological examinations when considered necessary.

Hospital Accommodation.—The Salford Corporation small-pox hospital is situate in this district, and an arrangement has been made for the reception of cases that may arise here. The Ladywell sanatorium at Eccles—also belonging to the Salford Corporation—is available for other infectious diseases. Cases treated : diphtheria 3 (1 death), scarlet fever 11 (1 death).

Disinfection.—No proper appliances.

Water Supply.—For the Villages of Prestwich, Rooden Lane, and Rainsough, the drinking water is derived from the Corporations of Manchester and Bury. The Manchester water is from Woodhead reservoir, and is of excellent quality. The Bury water is good, but requires more careful filtration. Simister Lane district is satisfactorily supplied from Heywood Corporation.

Sewerage, Scavenging, &c.—Sewage is treated at two outfall works, “ Clough ” and “ George Street ” on the bacteriological system, and by land filtration. A proposal to close the latter works and treat all the sewage at “ Clough ” is under consideration, and a scheme is on foot for laying out

additional land for irrigation beds at these works. The man-holes and sewers have been periodically flushed and disinfected, and additional ventilating shafts to the sewers provided. Seavenging is performed by the Authority.

Sanitary Inspection.—Bakehouses, including 2 underground, slaughter-houses, dairies and cowsheds, do not call for special comment; they are, on the whole, “good.” One hundred and ten visits of inspection were paid to the factories and workshops, and the 29 defects noted were remedied. Thirty-one water closets have been fixed in lieu of 19 privy middens, 3 pail closets, and 2 waste water closets. Notices served numbered 241, nuisances remedied 202, smoke observations 21.

Radcliffe.—(Area in acres, 3,098; Estimated Population, 25,500).—*Medical Officer of Health*, D. P. M. FARQUHARSON, M.B.; *Salary*, £60 (no claim).

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	23·1	15·6	1·52	1·05	3·05	164
1905	.....	23·8	16·4	1·21	0·58	3·84	155
Mean of 10 years							
1896-1905	.....	26·2	17·7	2·36	0·95	3·76	178
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>		—0·7	—0·8	+0·31	+0·47	—0·79	+9
<i>Ten Years' Average</i>		—3·1	—2·1	—0·84	+0·10	—0·71	—14

Dr. Farquharson was appointed Medical Officer of Health in August, but his report deals with the whole year. There has been a steady decline in the birth-rate since 1902, and the rate for the year under review is the lowest ever recorded for the district; the latter remark also applies to the general

death-rate. With a view to reducing the infantile mortality, the Medical Officer recommends "the earlier registration and notification to the Sanitary Authority of all births, the printing and distribution of cards of instruction, the appointment of a Lady Sanitary Inspector, and the formation of evening classes for imparting instructions in the rules of health to be followed by the mothers during pregnancy, in the feeding, general care, and management of children, and the general hygiene of the home as a means towards this end." The rates for the four Wards are given below :—

Ward.	Birth-rate.	Death-rate.	Infantile mortality.
Black Lane.....	22·8	.. 14·7	.. 128
Radcliffe Bridge..	25·5	.. 16·9	.. 196
Radcliffe Hall	22·3	.. 14·0	.. 127
Stand Lane.....	21·0	.. 17·0	.. 207

Infectious Diseases.—Cases notified : diphtheria and membranous croup 8 (2 deaths), scarlet fever 71 (1 death), enteric fever 24 (3 deaths), erysipelas 43, puerperal fever 1 (fatal). Non-notifiable diseases : whooping cough 1 death, diarrhoea (including 14 deaths under one year from "enteritis") 32 deaths. Of the 71 cases of scarlet fever notified, 43 occurred in Black Lane Ward, where the disease was most prevalent during July and August. Several cases were of such a mild type that they were not at first recognised, and thus tended to the spread of the disease ; in one school nearly all the cases occurred, and this was closed for five weeks. The majority of the enteric fever cases arose in Black Lane Ward, whilst Stand Lane Ward was most affected by the epidemic of measles which occurred in December.

Hospital Accommodation for all purposes is provided by the Bury, &c., Joint Board. The new small-pox hospital at Ainsworth was opened in September. Cases treated : diphtheria 2, scarlet fever 18, enteric fever 4 (1 death).

Disinfection.—Steam apparatus at the joint hospital used to disinfect bedding that cannot be disinfected at home. Houses fumigated numbered 211.

Water Supply obtained from the Bury, &c., Joint Board. Complaints are still received as to the quality of the water.

Sewerage, Scavenging, &c.—In addition to the precipitation and filtration methods for the disposal of sewage, a new bacteria bed, with automatic⁷₈ sprinkler, has been completed and put into use during the year. The Authority carry out scavenging in a satisfactory manner. A refuse destructor is provided.

Sanitary Inspection.—Twenty-seven old houses with sanitary defects were closed, and will be replaced by modern dwellings. Slaughter-houses are kept in “a cleanly state,” and dairies and cowsheds are much improved. Visits to factories and workshops numbered 392, and 46 canal boats were examined. The Inspector (Mr. Smith) reports on 1,179 nuisances dealt with, notices served 338, smoke observations 63.

Rainford.—(Area in acres, 5,877; Estimated Population, 3,300).—*Medical Officer of Health*, FRANK PROSSER, M.B.; *Salary*, £20.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	29·3	11·5	1·51	nil.	2·42	61
1905	.....	32·0	16·0	2·11	0·60	1·51	179
Mean of 10 years							
1896-1905	.....	28·9	14·3	1·54	0·82	2·27	117
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>.....—2·7 —4·5 —0·60 —0·60 +0·91 —118							
<i>Ten Years' Average</i> .+0·4 —2·8 —0·03 —0·82 +0·15 —56							

In 1905 the infant mortality was the highest ever recorded

for the district, whilst for the year under report it is the lowest. The general death-rate also declined considerably, and with the exception of 1903, it is the most favourable since 1891.

Infectious Diseases.—Cases notified : diphtheria 2, scarlet fever 3, enteric fever 13 (2 deaths), erysipelas 6. Non-notifiable diseases : whooping cough 1 death, diarrhœa (including 1 death under one year from “ enteritis ”) 2 deaths. Two of the scarlet fever cases were “ imported ” from a neighbouring district. Of the 13 cases of enteric fever, 4 occurred in one house in School Brow during February and March, 5 in one house in Ormskirk Road during September and November, and 4 occurred scattered throughout the district during the first four months of the year. In none of these, apart from the usual privy and midden, could any special sanitary defect be found.

Hospital Accommodation.—A cottage hospital—4 beds—is provided, but it is reserved for small-pox.

Disinfection.—No apparatus.

Water Supply good, obtained from St. Helens.

Sewerage, Scavenging, &c.—The bulk of the sewage runs into cesspools. The removal of house refuse has hitherto been left to the householders, but from the 1st January, 1907, this work will be performed by contract.

Sanitary Inspection.—There are few bakehouses, dairies, cowsheds, &c., and they are well kept. Factories and workshops were visited on 35 occasions. Fifty nuisances were abated.

The report is in manuscript.

Ramsbottom.—(Area in acres, 6,424 ; Estimated Population, 16,200).—*Medical Officer of Health*, WILLIAM DEANS. M.B. ; *Salary*, £60.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	17·5	14·2	1·85	0·67	2·28	126
1905	.....	20·2	15·0	0·80	1·60	2·90	106
Mean of 10 years							
1896-1905	.....	21·7	14·8	1·20	1·34	2·93	126

Increase or Decrease

on—

<i>Previous Year</i>	—2·7	—0·8	+1·05	—0·93	—0·62	+20
<i>Ten Years' Average</i>	—4·2	—0·6	+0·65	—0·67	—0·65	..

The general death-rate shows a fractional decrease as compared with the preceding year, but the zymotic and infant rates are not so favourable.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 8 (4 deaths), scarlet fever 17 (3 deaths), enteric fever 10 (2 deaths), erysipelas 1. Non-notifiable diseases : measles 9 deaths, diarrhoea (including 2 deaths under one year from "enteritis") 12 deaths. A severe epidemic of measles occurred during February and March, and the infant departments of two schools were closed. In March, as the epidemic became more general all the day schools with the exception of Edenfield and Rowlands were closed for three weeks. The epidemic extended to Edenfield in the latter part of May, and the day school was closed. All the schools were thoroughly disinfected before being re-opened.

Hospital Accommodation is provided by the Bury, &c., Joint Board for all purposes. Cases treated : scarlet fever 7 (2 deaths), enteric fever 5 (1 death).

Disinfection.—No apparatus. Infected houses are sprayed and fumigated with formaldehyde. The day schools were disinfected on 14 occasions on account of outbreaks of infectious disease.

Water Supply obtained from the Bury Joint Water Board.

Sewerage, Scavenging, &c.—The Medical Officer of Health reports that “the effluent from the sewage works at Summerseat has been maintained at a very high standard during the 12 months, and the land is proving itself to be of excellent quality for purification purposes.” The great bulk of the main drainage scheme has now been completed. Scavenging is efficiently and satisfactorily carried out. In three Wards the work is performed by the Council’s workmen, and in one Ward by contract.

Sanitary Inspection.—“There are many streets, both back and front, which are anything but in a satisfactory condition,” owing to want of paving, &c. Slaughter-houses (17), as well as dairies and cowsheds, are, on the whole, “fairly good.” Only 6 minor defects were discovered as the result of 176 visits to factories and workshops. A number of privy middens and cesspools were abolished and the water-carriage system substituted. A long felt want has been supplied by the erection of a public mortuary in the centre of the town. The Inspector (Mr. Fort) reports on the sanitary work accomplished in his department, which included the following:—

Ashpits reconstructed or repaired	4
Dust bins provided	42
Privy cesspools abolished	19
Closets rebuilt or repaired	33
Water closets provided	103
Waste water closet drains cleansed	238
New gullies provided	10
Smoke observations	8

Rawtenstall (Borough).—(Area in acres, 9,535 ; Estimated Population, 32,200).—*Medical Officer of Health*, J. E. HELM, B.A., M.B. ; *Salary*, £100.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	20·6	14·4	0·80	1·14	2·29	123
1905	21·8	14·2	0·46	0·62	2·98	117
Mean of 10 years						
1896-1905	24·1	16·2	1·36	0·97	3·46	147

Increase or Decrease

on—

<i>Previous Year</i>	—1·2	+0·2	+0·34	+0·52	—0·69	+6
<i>Ten Years' Average</i>	—3·5	—1·8	—0·56	+0·17	—1·17	—24

The decline in the birth-rate continues, whilst the general death-rate is practically the same as last year. The excess in the zymotic rate and in the infantile mortality was caused mainly by the increase in the fatalities from measles and diarrhœa. Almost one-half of the infant deaths were due to wasting diseases, 31 occurring before one week of life had been completed. "The demand for female labour in the cotton mills still continues, and the number of deaths due to premature births and debility continues high."

Infectious Diseases.—Cases notified : diphtheria and membranous croup 15 (4 deaths), scarlet fever 17, enteric fever 8 (1 death), erysipelas 23 (1 death), puerperal fever 5 (1 death). Non-notifiable diseases : measles 10 deaths, diarrhœa (including 7 deaths under one year from "enteritis") 11 deaths. Only 17 cases of scarlet fever were notified as compared with 65 last year, 139 in 1904, and 69 in 1903. With the exception of one case in January, the first five months of the year were entirely free from this disease. It made its appearance in June at Scout Bottom, Newchurch, and

scattered cases continued to crop up at intervals for the remainder of the year. Five cases occurred in September amongst children attending a school at Whitewell Bottom, but it was not deemed advisable to adopt closure. Dr. Helm says, "in this connection the value of an isolation hospital may be considered. Small as the number of cases of scarlet fever was in 1906, it would have been smaller by 6, that is more than 30 per cent., if it had been possible to completely isolate the first cases at Scout Bottom and Whitewell Bottom as soon as they appeared. Complete isolation and supervision is impossible in the vast majority of private houses in the Borough." One of the enteric fever cases was due to contaminated water, and in this case it was fortunate that the disease was not communicated to others for the water in question supplied a farm from which milk was sold. Two other cases were due to insanitary surroundings and faulty drains. Measles, which was entirely absent during 1905, appeared in September. The first cases were contracted from children who came from Burnley whilst they were in an infective state. The disease continued to spread, and in November and December, several schools had to be closed. Enquiries into the diarrhoea deaths revealed "improper feeding" as the probable cause in the majority of the cases. Dr. Helm advises his Council to consider the question of voluntary notification of cases of phthisis. During the year handbills were distributed giving instructions as to the care of persons suffering from this disease, and the Council offer to disinfect rooms and bedding wherever a death takes place. Commenting on the Midwives Act, 1902, the Medical Officer says there has been a marked improvement as regards the dresses and outfits carried by the midwives since the Act was put into operation.

Hospital Accommodation.—The only provision available is for small-pox at the Ridge Hareholme, where there is accommodation for 22 cases. During the year representatives

of the Boroughs of Bacup, Haslingden, and Rawtenstall met to consider the advisability of building a joint hospital for the isolation of infectious diseases, and decided that such a hospital should be established. The site, number of beds, and the diseases to be admitted have not yet been considered.

Disinfection.—Steam apparatus provided at the small-pox hospital. Thirty-five houses and 17 schools were disinfected by formalin vapour or sprayed.

Water Supply.—Most of the houses are supplied by the reservoirs of the Bury and District Joint Water Board, situate at Clow Bridge and Clough Bottom, both within the Borough boundaries. Since the institution of filter beds, the quality of the water has left little to be desired. The many private supplies, however, are a constant source of anxiety, and cause of complaint by the users ; as a general rule the water although plentiful is stored and conveyed in unsuitable pipes and cisterns.

Sewerage, Scavenging, &c.—Sewage is treated at the Ewood Bridge outfall works belonging to the Haslingden Bacup, and Rawtenstall Joint Board. Progress has been made at the outfall works with the construction of additional filter beds and storm water plots. The ventilation of the sewers still constitutes a serious nuisance in side streets and on rising ground, and many complaints were made during the year. The necessity of erecting ventilation shafts is again referred to. Scavenging has been satisfactorily carried out by the Corporation. A refuse destructor is provided.

Sanitary Inspection.—The number of back-to-back houses has been still further reduced, and steps are being taken to make those remaining “ more sanitary.” Bakehouses, on the whole, are in good order, and the slaughter-houses (37), and lodging houses (4) are “ well kept.” During the year bye-laws relating to houses let in lodgings have been framed.

Very few of the cowsheds comply with the requirement of 800 cubic feet of air space per cow, and the animals and the shippens are not always kept in that cleanly state necessary to ensure a clean and wholesome supply of pure milk. The factories and workshops gave little cause for complaint. Seventy pails, 2 privy middens, and 11 tank closets were converted to the water-carriage system. The Inspector (Mr. Rawling) reports on the sanitary work accomplished. Notices served numbered 178, smoke observations 22.

Rishton.—(Area in aeres, 2,985; Estimated Population, 7,400).—*Medical Officer of Health*, JOHN BARR, M.D.; *Salary*, £30.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	24·4	10·4	1·75	0·67	2·29	116
1905	22·5	10·6	1·08	0·54	1·75	95
Mean of 10 years						
1896-1905	24·3	12·7	1·88	0·87	1·92	138
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	+1·9	−0·2	+0·67	+0·13	+0·54	+21
<i>Ten Years' Average</i>	+0·1	−2·3	−0·13	−0·20	+0·37	−22

The general death rate is below the average for the past decade, and excepting 1905 the infantile mortality proved the most favourable on record. The birth-rate remains practically the same as the ten years' average. Dr. Barr strongly warns mothers against the use of feeding bottles with long rubber tubing, and suggests that if a child has to be artificially fed a boat-shaped bottle, which is easily cleansed, should be employed.

Infectious Diseases.—Cases notified : diphtheria 4 (1 death), scarlet fever 23, enteric fever 6 (1 death), erysipelas 17, puerperal fever 4 (1 death), continued fever 3. Non-notifiable diseases : measles 3 deaths, whooping cough 1 death, diarrhoea (including 6 deaths under 1 year from “ enteritis ”) 7 deaths. In consequence of an extensive epidemic of measles in February and March, an infant school had to be closed. The Medical Officer of Health advocates the notification of this disease. During the latter part of the year there were many cases of influenza of a rather severe type, but no deaths were reported as being caused by the disease.

Hospital Accommodation.—No provision is made “ except an agreement with the Blackburn Authorities, and this is practically useless.”

Disinfection.—No proper appliances.

Water Supply, derived from upland sources, after passing through filter beds, is “ pure and good.”

Sewerage, Scavenging, &c.—Sewage is dealt with by precipitation and irrigation. The new works for the treatment of sewage by the bacterial system are in an advanced stage, and it is expected that they will shortly be completed. Scavenging is performed by contract.

Sanitary Inspection.—Systematic inspection of the district is carried out at frequent intervals. Bakehouses, slaughter-houses, dairies, and factories and workshops all give satisfaction ; 10 inspections of the latter were made. Only 7 notices were required for the abatement of nuisances, and these have been complied with. Eight smoke observations were taken.

Royton.—(Area in aeres, 2,145 ; Estimated Population, 15,600).—*Medical Officer of Health*, RALPH YOUNG, M.D. ; *Salary*, £50.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	27·6	17·5	1·98	0·64	3·84	113
1905	24·3	18·0	1·41	0·64	4·51	129
Mean of 10 years						
1896-1905	25·8	18·2	2·10	1·18	4·21	159
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	+3·3	−0·5	+0·57	..	−0·67	−16
<i>Ten Years' Average</i> ..	+1·8	−0·7	−0·12	0·54	−0·37	−46

The birth-rate is the highest recorded for the district during the past 10 years, with the exception of 1902, when it was exactly the same, whilst the death-rate is lower than in any year since 1898. The infantile mortality is the lowest on record for the district.

Infectious Diseases.—Cases notified : small-pox 13, diphtheria and membranous croup 4, scarlet fever 146 (5 deaths), enteric fever 8 (2 deaths), erysipelas 19 (1 death), puerperal fever 1. Non-notifiable diseases : measles 9 deaths, diarrhoea (including 2 deaths under one year from “ enteritis ”) 15 deaths. Of the cases of small-pox, 5 were reported in January and February from Heyside ; difficulties were experienced with regard to the vaccination of contacts, but these were subsequently overcome. The next series of cases appeared in June in Dryclough Ward, where there were six cases in rapid succession ; two other cases afterwards occurred, one in July and one in August. In these instances the contacts were vaccinated as early as possible. Scarlet fever, of

a somewhat mild type, was prevalent during the last three months of the year. In several instances delay in notifying the disease occurred, thus impeding the action necessary to prevent its spread. As a result of special enquiries made into the cases of enteric fever, it is noteworthy that all were found associated with defective drainage.

Hospital Accommodation.—Small-pox cases are treated at the joint hospital at Cinder Hill, and other infectious cases can be removed, by arrangement, to the Oldham Corporation hospital. Cases treated: small-pox 13, scarlet fever 16, enteric fever 4.

Disinfection.—Steam apparatus (Manlove's) at the joint small-pox hospital available. Rooms fumigated numbered 277.

Water Supply. obtained from the Oldham Corporation, is said to be satisfactory.

Sewerage, Scavenging, &c.—Sewage treated by precipitation and filtration. The Authority undertake scavenging; a refuse destructor is provided.

Sanitary Inspection.—Bakelhouses are described as "satisfactory," and slaughter-houses as fairly well kept. Lodging-houses have been periodically visited and found clean and free from overcrowding. A special inspection of the dairies and cowsheds has resulted in improvements being effected as regards drainage, lighting and ventilation. Visits made to factories and workshops numbered 142, and in regard to cleanliness these premises were found in a fairly satisfactory condition; in a few instances notices were necessary to remedy minor defects. Nuisances abated numbered 189 and notices served 40. Twenty-two smoke observations were taken.

St. Annes-on-the-Sea.—(Area in acres, 3,342 : Estimated Population, 9,474).—*Medical Officer of Health*, FRED BOOTH, M.D. ; *Salary*, £90.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	15·6	10·8	0·52	0·84	1·05	54
1905	15·2	10·9	0·21	0·98	1·53	86
Mean of 10 years						
1896-1905	17·9	10·0	0·48	0·93	1·54	103
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	+0·4	−0·1	+0·31	−0·14	−0·48	−32
<i>Ten Years' Average</i> ..	−2·3	+0·8	+0·04	−0·09	−0·49	−49

The birth and death rates remain almost the same as in 1905. The infant rate declined, and is the lowest recorded during the last 10 years, but an increase is recorded in the zymotic rate. If the deaths of 19 visitors were excluded, a residential death-rate of 8·8 per 1,000 would be attained against 9·2 last year.

Infectious Diseases.—Cases notified : scarlet fever 13 (1 death), enteric fever 3 (1 death), erysipelas 2, puerperal fever 1 (fatal), measles—notifiable since January, 1905—57 (1 death). Non-notifiable diseases : diarrhoea 2 deaths—both amongst children under one year and registered as “enteritis.” Four of the scarlet fever cases and one case of enteric fever were clearly “imported.” Measles was almost entirely confined to the months of June, July, and August, and occurred chiefly amongst the children attending two of the schools. As in former reports, Dr. Booth requests his Council to consider the advisability of placing phthisis amongst the compulsory notifiable diseases, believing that this is

especially required at a health resort, where persons may unknowingly be occupying rooms which have recently been vacated by a sufferer from this disease. He also strongly recommends that cattle be periodically examined by a veterinary surgeon with a view to ascertaining whether bovine tuberculosis exists, and also that powers be obtained to examine the farms and cattle outside the district, from which the milk supply of the district is obtained. The public schools of the district have been visited, and one, in the opinion of Dr. Booth, is in an unsatisfactory state as regards overcrowding, ventilation, &c., and injurious to the health of both teachers and scholars.

Hospital Accommodation is available at the Fylde joint hospital at Moss Side for ordinary infectious diseases, and for small-pox at Elswick. Cases treated: scarlet fever 11, enteric fever 1.

Disinfection.—Goddard, Massey, and Warner's steam apparatus provided—353 articles were disinfected, and 163 rooms fumigated by formalin vapour.

Water Supply—obtained from the Fylde Water Board—has been on the whole satisfactory.

Sewerage, Scavenging, &c.—Sewage is discharged by gravitation into the sea without previous treatment. A large storm water sewer is being provided to prevent backing up into cellars of storm water when the sewer outlet is tide locked. At 99 premises, the drains and soil pipes were tested, and the several defects found rectified. Scavenging and removal of house refuse—undertaken by the Authority—has been better attended to than formerly owing to a larger staff of men and carts being employed. A refuse destructor is provided.

Sanitary Inspection.—Visits to the 15 bakehouses revealed “absolute cleanliness and excellent sanitary conditions.”

There are no private slaughter-houses, and the public abattoir is regularly inspected. Some of the cowsheds are still overcrowded and badly ventilated, and, in some instances, the farm yards are badly paved and drained. Only 9 defects were discovered on the 124 visits of inspection to the workshops. Twenty-three privies were converted to water closets. The Inspector (Mr. Procter) reports the abatement of 238 nuisances as the result of 293 letters and the service of 34 notices. Meteorological statistics are appended to the report.

Skelmersdale.—(Area in acres, 1,942 ; Estimated Population, 6,500).—*Medical Officer of Health*, VINCENT O'REILLY, M.B. ; *Salary*, £30.

Vital Statistics.

PER 1,000 OF POPULATION.

	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	34.4	17.6	1.69	0.15	4.60	205
1905	34.9	15.3	1.53	0.30	3.07	149
Mean of 10 years						
1896-1905	34.6	18.7	1.60	0.78	4.92	165
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	−0.5	+2.3	+0.16	−0.15	+1.53	+56
<i>Ten Years' Average</i>	−0.2	−1.1	+0.09	−0.63	−0.32	+40

The statistics, as a whole, are not so favourable as those of the previous year. The infant rate is well above the 10 years' average, and together with the general death-rate, zymotic and respiratory rates in excess of 1905.

Infectious Diseases.—Cases notified : diphtheria 1, scarlet fever 38, enteric fever 3 (2 deaths), erysipelas 3, puerperal fever 1 (fatal). Non-notifiable diseases : diarrhoea (including 3 deaths under one year from “ enteritis ”) 9 deaths.

Hospital Accommodation.—A small cottage containing 5 beds is available primarily for small-pox, but 12 cases of scarlet fever were treated during 1906.

Disinfection.—No proper apparatus. Fifty houses fumigated with formalin ; the day schools are disinfected monthly.

Water Supply obtained from an Artesian well.

Sewerage, Scavenging, &c.—Sewage is treated at two outfall works by settlement and irrigation. The Authority efficiently perform scavenging.

Sanitary Inspection.—Bakehouses, slaughter-houses, and dairies give satisfaction, but regulations affecting the latter premises have not been adopted. The condition of factories and workshops is described as “excellent,” 43 inspections of these places were made. The privy midden system is, with 20 exceptions, the only form of closet accommodation. Forty-eight nuisances were remedied.

Standish-with-Langtree.—(Area in acres, 3,266 ; Estimated Population, 6,772).—*Medical Officer of Health*, J. H. WILSON, M.D. ; *Salary*, £35.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	33·2	14·0	1·77	0·44	1·62	168
1905	.....	33·9	16·1	0·74	0·89	2·69	167
Mean of 10 years							
1896-1905	.....	35·4	18·1	2·50	0·84	3·98	176
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	.....	—0·7	—2·1	+1·03	—0·45	—1·07	+1
<i>Ten Years' Average</i>	.....	—2·2	—4·1	—0·73	—0·40	—2·36	—8

The birth-rate is the lowest recorded, and excluding

1903, the same may be said of the death-rate. The zymotic and infant rates are also below the 10 years' average.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 3 (1 death), scarlet fever 12 (2 deaths), enteric fever 8 (1 death), erysipelas 9, puerperal fever 1, measles—notifiable in this district—14 (1 death). Non-notifiable diseases: whooping cough 1 death, diarrhoea 6 deaths (all under one year and registered as from “enteritis.”)

Hospital Accommodation.—A small cottage—6 beds—is available for small-pox. This district is one of the constituent Authorities under the Wigan and District Small-pox Hospital Order.

Disinfection.—No apparatus. Houses fumigated with sulphur.

Water Supply “excellent,” procured from the Rivington reservoirs of the Liverpool Corporation. During the year there have been interruptions in the supply due to subsidence on the route of mains, but measures have been taken to obviate this drawback.

Sewerage, Scavenging, &c.—The treatment of sewage is by settlement, single contact, and irrigation at the Council's farm. Sewers are regularly flushed. Scavenging, partly carried out by the Authority and partly by contract, gives satisfaction.

Sanitary Inspection.—Structural improvements have been effected at the dairies and cowsheds, and also more attention is now paid to cleanliness. Bakehouses and slaughter-houses are kept in good condition. The abatement of 51 nuisances was secured by the Inspector (Mr. Shepherd) after the service of 54 notices.

Stretford.—(Area in acres, 3,240 ; Estimated Population, 40,000).—*Medical Officer of Health*, W. J. HESLOP, F.R.C.S., Edin. ; *Salary*, £150.

Vital Statistics.

PER 1,000 OF POPULATION.							
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.	
1906	19·6	11·6	1·10	0·82	1·91	122	
1905	20·4	11·8	0·67	0·77	1·75	109	
Mean of 10 years							
1896-1905	21·6	13·6	1·33	1·01	2·42	135	
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	—0·8	—0·2	+0·43	+0·05	+0·16	+13	
<i>Ten Years' Average</i>	—2·0	—2·0	—0·23	—0·19	—0·51	—13	

The birth-rate, which is the lowest on record, varied from 28·0 per 1,000 in Talbot Ward to 24·3 Longford Ward, 19·8 Stretford Ward, 17·5 Clifford Ward, 14·6 Trafford, and Cornbrook Wards. The general death-rate is also below any previously reported, Longford Ward having the highest rate with 13·6, and Trafford Ward the lowest, 10·3. The zymotic rate varied from 2·0 in Talbot Ward to 0·5 in Trafford and Cornbrook Wards.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 55 (10 deaths), scarlet fever 140 (2 deaths), enteric fever 12 (2 deaths), erysipelas 9, puerperal fever 2 (1 death). Non-notifiable diseases : measles 3 deaths, whooping cough 6 deaths, diarrhoea (including 13 deaths under one year from “enteritis”) 21 deaths. Diphtheria was prevalent in January, September, and December, and scarlet fever was most troublesome in March, October, and November. Dr. Heslop regrets that more advantage is not taken of the treatment by antitoxin of diphtheria in its early stage. Every facility is given by the Council ; the

serum can be obtained free of charge on application at the Council Offices. Thirty-six specimens—20 diphtheria, 7 typhoid fever, 8 sputum, and 1 milk—were examined bacteriologically by Professor Delépine.

Hospital Accommodation is available at the Salford Corporation hospitals—at Ladywell (Eccles) for ordinary infectious diseases, and at Drinkwater Park (Prestwich) for small-pox. Cases treated : diphtheria 22 (4 deaths), scarlet fever 77 (2 deaths), enteric fever 2, measles 1, other diseases 3.

Disinfection.—The Washington Lyon's steam apparatus was used for the disinfection of 1,857 articles. Two hundred and eighty-two rooms in dwelling-houses and 166 school-rooms were fumigated.

Water Supply of high quality obtained from the Manchester Corporation.

Sewerage, Scavenging, &c.—Three-fifths of the sewage is received into the Manchester system, the remainder being dealt with on the Council's sewage farm by broad irrigation. A neighbouring Council complained of the pollution of the Eea Brook by storm water from this district, and to obviate further complaints, storm water beds are being prepared at the outfall works. The desirability of applying an efficient test to drains was demonstrated by the fact that of 533 drains tested in old property, 269 defects were observed, and of 1,015 tested in new property, 389 were found to be defective. Four hundred and fifty sanitary fittings in new property were examined, and no less than 210 were not satisfactory. The Authority carry out scavenging in a satisfactory manner, over 6,500 tons of refuse being taken to the destructor.

Sanitary Inspection.—The housing scheme, referred to in previous reports, “is well on its way to being an accomplished fact.” The erection of the first instalment (20 pairs) will

enable the Council to deal with the back-to-back houses, and as the remaining houses are completed the overcrowding can then be taken in hand. Bakehouses—28 in number, of which four are in cellars—are “satisfactory.” Slaughter-houses (8) are also fairly well kept, but a public abattoir would be preferable. Over 8,000 lbs. of diseased or unsound meat were destroyed, and also a quantity of fish, fruit, &c. Visits to the dairies and cowsheds resulted in several notices being issued calling for greater cleanliness, and a discontinuance of overcrowding in certain cases. Factories and workshops received 279 visits, 25 defects being noted. Privies converted to water closets numbered 124. The Inspector (Mr. Nuttall) gives particulars of a vast amount of sanitary work accomplished. Notices served amounted to 355, nuisances abated 905, smoke observations 198.

Swinton and Pendlebury.—(Area in acres, 2,212; Estimated Population, 29,000).—*Medical Officer of Health*, SAMUEL HOSEGOOD, M.R.C.S.; *Salary*, £110.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	29·2	18·4	3·75	0·82	3·96	199
1905	.....	29·6	13·9	1·29	0·80	2·77	128
Mean of 10 years							
1896-1905	.....	30·9	18·1	3·07	0·77	4·10	185
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	.....	—0·4	+4·5	+2·46	+0·02	+1·19	+71
<i>Ten Years' Average</i>	.....	—1·7	+0·3	+0·68	+0·05	—0·14	+14

The birth-rate is the lowest recorded for the district, with the exception of the year 1900, and the mortality averages do not compare favourably with those of the previous year.

As a result of a special investigation of the question of infantile mortality, the Council have decided to appoint a lady Health Visitor, whose chief duties will be to give instruction as to the feeding and clothing of infants. Owing to the high mortality from respiratory diseases for some years past, a Sub-Committee was appointed to deal with this question, and after due consideration expressed an opinion "that greater care is necessary on the part of mothers in looking after their children in the matters of warmth, cleanliness, and proper feeding. Also that greater precautions should be taken by adults with respect to sudden changes of temperature in crowded and heated rooms where the air is vitiated."

Infectious Diseases.—Cases notified: diphtheria and membranous croup 18 (2 deaths), scarlet fever 78 (3 deaths), enteric fever 32 (8 deaths), erysipelas 35, puerperal fever 1. Non-notifiable diseases: measles 27 deaths, whooping cough 9 deaths, diarrhœa (including 12 deaths under one year from "enteritis") 60 deaths. Of the 32 cases of enteric fever 26 occurred in houses provided with privies. During the last quarter of the year, measles became widely prevalent, and closure of the more seriously affected schools was resorted to. Referring to this disease, Dr. Hosegood remarks, "it is not altogether easy to determine the exact cause of these periodical invasions of this most fatal disease of childhood, but it is a fact that parents, and those responsible for the care of children, appear to be under the impression—despite repeated warnings to the contrary—that not even the most ordinary steps need be taken to prevent its spread." A handbill stating the dangerous nature of measles and its fatal *sequelæ* was prepared and distributed, which, it is hoped, will command the attention of parents and teachers, so that eventually a better condition of things may be brought about. Voluntary notification of phthisis was adopted by the Council during the latter part of the year, and as a result, 19 cases were reported. Printed instructions giving information as

to the personal care of health are distributed, and every effort made to control, as far as possible, the spread of the disease.

Hospital Accommodation.—The Ladywell sanatorium belonging to the Salford Corporation is available for ordinary infectious diseases. Accommodation for small-pox cases is provided at Linnyshaw Moss jointly with Worsley. Cases treated : scarlet fever 7, enteric fever 6.

Disinfection.—The steam apparatus at Mode Wheel (Salford), is used for the disinfection of clothing, bedding, &c., of patients removed to hospital. The provision of disinfecting apparatus for this district is under consideration. Houses are fumigated with formalin or sulphur. The whole of the public schools have been fumigated three times during the year, and the walls, furniture, and floors sprayed with a disinfecting solution.

Water Supply obtained from the Manchester Corporation.

Sewerage, Scavenging, &c.—Sewage is treated at two outfall works. The Mersey and Irwell Joint Committee had occasion to complain of unsatisfactory effluents. The work of testing drains and sanitary fittings was extensively carried out, 1,598 inspections and re-inspections being made ; defects were discovered on 246 premises. The Authority carry out scavenging in a satisfactory manner. The provision of a refuse destructor, frequently advocated by Dr. Hosegood, has at length been brought within measurable distance by the appointment of a Committee to consider the matter.

Sanitary Inspection.—Periodical inspections of the various portions of the district have been carried out during the year, with the result that many improvements have been effected, especially in the condition of backyards and back-passages, which are now better paved, and therefore drier than has been the case for several years past. Bakehouses, and slaughter-houses are described as satisfactory. The Medical

Officer of Health suggests the desirability of an early consideration of the question of providing a public abattoir thus rendering the supervision of the meat supply far less difficult. Dairies and cowsheds received attention; in one instance a new dairy was provided. Inspections of factories and workshops numbered 199 as a result of which 34 defects were found and remedied. One hundred and twenty-six privies were converted to water closets, and 85 ashbins were provided in lieu of ashpits. The Inspector (Mr. Bleakley) served 403 notices, secured the abatement of 1,388 nuisances, took 103 smoke observations, &c.

Thornton.—(Area in acres, 2,996 ; Estimated Population, 3,957).—*Medical Officer of Health*, F. S. Rhodes, M.R.C.S. ; *Salary*, £30.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	29·5	11·6	1·51	0·25	1·51	59
1905	22·3	13·8	nil.	1·28	3·34	68
Mean of 6 years						
1900-1905	31·1	13·6	1·19	0·44	2·31	120
<i>Increase or Decrease on—</i>						
<i>Previous Year</i>	+7·2	−2·2	+1·51	−1·03	−1·83	−9
<i>Six Years' Average</i>	−1·6	−2·0	+0·32	−0·19	−0·80	−61

Since the formation of the Urban District in 1900, the infant rate has not been so favourable as in the year under report. Other satisfactory features to be noted are the decline in the general death, phthisis, and respiratory rates, and rise in the birth-rate as compared with 1905.

Infectious Diseases.—Cases treated : diphtheria 13 (4 deaths), scarlet fever 34, measles—notifiable in this district—

4. Non-notifiable diseases : diarrhoea (including 1 death under one year from " enteritis ") 2 deaths. All the diphtheria cases (13) occurred during the last five months of the year. In consequence of 9 children attending the Endowed School in East Ward being attacked, it was deemed advisable to close this school for over a month. It was ascertained that for some time certain of the scholars suffered from sore throat, which had not been ascribed to diphtheria. Swabs were taken from the throats of the children and submitted to Professor Delépine who detected, in several specimens, diphtheritic bacilli. On strict investigations being made as to the origin of the outbreak, damp and insanitary surroundings were discovered in several cases. It is coincident that the " discharge of foul gases from the manhole of the new main sewer was very bad about the period of the outbreak of the disease." Scarlet fever, of a mild character, had the greatest prevalence in the last quarter, and it was also during this period that an epidemic of mumps occurred.

Hospital Accommodation is provided at Moss Side (Fylde Joint) for ordinary infectious eases, and at Elswick for small-pox. Cases treated: diphtheria 10 (3 fatal), scarlet fever 29.

Disinfection.—No proper apparatus. During the year a formaldehyde spraying machine was provided, and it is hoped that in the near future some appliances may be introduced for disinfecting bedding, &c. Fifty-one houses were fumigated after the occurrence of infectious diseases.

Water Supply obtained chiefly from the Fylde Water Board. The attention of the Board had to be called in the summer to the muddy condition of the supply in West Ward, and as a result the mains are now being more systematically flushed. Steps are at last being taken to provide for a sufficient supply at Stanah.

Sewerage, Scavenging, &c.—Sewage is discharged into the sea in the Bispham area. "The main scheme of sewerage, which has occupied about three years in construction, is now practically completed." Owing to the flat nature of the district, it was found necessary to install a system of ejectors, worked by compressed air, as a means of lifting the sewage. Complaints have been made regarding the offensive smells emanating from the manholes. Scavenging is fairly well performed by contract.

Sanitary Inspection.—"House accommodation is good and satisfactory in all parts of the district." Dairies and cowsheds—periodically inspected—are in fair condition, but many of the older shippens do not comply with the regulations, although improvements have been carried out by the owners. Twelve inspections of factories and workshops revealed 10 defects. During the year, 102 water closets have been substituted for privies. Twenty-eight notices were served by the Inspector (Mr. Fenton) for the abatement of nuisances. "Irregular" smoke observations taken.

Tottington.—(Area in acres, 2,543; Estimated Population, 6,600).—*Medical Officer of Health*, A. H. POOLE, L.R.C.P.E.; *Salary*, £40.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	17.4	15.1	1.36	0.60	2.57	156
1905	19.0	13.3	0.93	0.31	2.63	97
Mean of 7 years						
1899-1905	19.7	14.4	1.27	0.90	3.27	99
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	—1.6	+1.8	+0.43	+0.29	—0.06	+59
<i>Seven Years' Average</i> —	2.3	+0.7	+0.09	—0.30	—0.70	+57

A fall in the birth-rate as compared with last year is

accompanied by a rise in the general death-rate. All the other mortality averages, excepting the respiratory rate, are less favourable, the infantile death-rate being the highest recorded for the district.

Infectious Diseases.—Cases notified : membranous croup 1 (fatal), scarlet fever 13 (1 death), enteric fever 2 (both fatal), erysipelas 2, puerperal fever 1 (fatal). Non-notifiable diseases: whooping cough 1 death, diarrhœa 4 deaths. The case of membranous croup and the two cases of enteric fever were attributed to sanitary defects.

Hospital Accommodation provided at the Bury, &c., joint hospitals. Cases treated : scarlet fever 7 (1 death).

Disinfection.—Clothing is disinfected, by arrangement, in the Bury steam apparatus. Fifteen houses were fumigated with sulphur.

Water Supply obtained from the Bury, &c., Joint Water Board, has been satisfactory during the year, with the exception of the supply to the Hawkshaw district. Complaints from this locality are frequent in regard to the insufficient quantity. When the new reservoirs are completed a regular and continuous supply to this district will be assured.

Sewerage, Scavenging, &c.—Sewage is treated at two out-fall works, viz., Green Mount and Holly Mount, by settlement in tanks, precipitation, and subsequent land filtration. The sewers have been extended in various parts of the district. Scavenging, performed by contract, is efficiently carried out.

Sanitary Inspection.—The Medical Officer of Health advises his Council to adopt building bye-laws. The condition of yard spaces in the rear of many houses requires attention, the soil often being soaked with slop-water. Bake-houses (4) and slaughter-houses (5) are well conducted, and

the condition of dairies and cowsheds shows a marked improvement. Regulations under the Dairies, Cowsheds, and Milkshops Order, 1885, came into operation in March, 1907. Special visits were paid to the factories and workshops, and full details of these premises are given in the report ; on the whole, the sanitary conveniences are kept clean. The Inspector (Mr. Kenyon) secured the abatement of 125 nuisances, only 11 notices being required. Twenty-three smoke observations were taken.

Trawden.—(Area in acres, 6,815 ; Estimated Population, 2,840).—*Medical Officer of Health*, GEORGE SKEEN, M.B. ; *Salary*, £20.

Vital Statistics.

PER 1,000 OF POPULATION.

	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under year to 1,000 Births.
1906	25·7	11·9	1·05	0·70	2·11	109
1905	25·0	10·7	0·35	0·71	0·71	85
Mean of 10 years						
1896-1905	26·9	15·0	1·34	1·15	2·74	144
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	+0·7	+1·2	+0·70	−0·01	+1·40	+24
<i>Ten Years' Average</i>	−1·2	−3·1	−0·29	−0·45	−0·63	−35

The birth-rate is higher than last year, but below the average of the preceding decade, and the same remarks apply to the general death-rate, zymotic rate, respiratory rate, and infantile mortality. The usual causes contributory to the infant death-rate are referred to, viz., “ neglect, exposure, and improper feeding.”

Infectious Diseases.—Cases notified : scarlet fever 59 (1 death), enteric fever 1, erysipelas 5. Non-notifiable diseases : measles 1 death, diarrhoea 1 death—a child under

one year registered as due to "enteritis." Scarlet fever was prevalent during the latter half of the year. Dr. Skeen says many of the scarlet fever attacks would not have occurred but for "want of consideration on the part of several parents of affected children. There were many cases of gross carelessness and negligence. Some convalescent children, with the skin peeling, and in a highly infectious state, were greatly increasing the epidemic." The Medical Officer again protests against "the habit of sending school children allowed to play in the streets with healthy children, thus with notes to the houses of absent scholars to enquire as to the cause of absence." In many cases, the absence is due to infectious disease, and the messenger runs the risk of infection. In May, there was a severe epidemic of measles, 60 cases being ascertained that month. The disease spread rapidly, but the epidemic abated early in June. One school was closed for a fortnight, and this action considerably curtailed the spread of the infection.

Hospital Accommodation nil. Cases of small-pox may—by arrangement—be removed to the Colne Borough hospital.

Disinfection.—No apparatus.

Water Supply, perfect in quality and abundant, is obtained from a boring in Boulsworth.

Sewerage, Scavenging, &c.—Sewage undergoes treatment by continuous precipitation and irrigation. Scavenging is performed satisfactorily by the Authority, refuse being deposited in disused quarries.

Sanitary Inspection.—Bakehouses and slaughter-houses are "all in good condition." Some of the cowsheds also are in good order, being well ventilated and clean, but this does not apply to all. Many are low-roofed and dirty, and the cattle appear ill kept and uncomfortable. Dairy and cowshed

regulations are not in force. The sanitary condition of factories is now much improved, and the question of converting the existing closet accommodation to the water-carriage system is under consideration. The Inspector (Mr. Tatham) reports that only one notice was required for the abatement of nuisances.

Turton.—(Area in acres, 17,335 ; Estimated Population, 12,600).—*Medical Officer of Health*, JAMES ROBINSON, M.D., L.S.Sc. ; *Salary*, £60.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	17·6	12·6	0·87	0·87	2·93	63
1905	19·9	11·7	1·27	0·63	2·70	72
Mean of 10 years						
1896-1905	21·3	12·6	1·08	0·85	2·61	102
<i>Increase or Decrease on—</i>						
<i>Previous Year</i>	—2·3	+0·9	—0·40	+0·24	+0·23	—9
<i>Ten Years' Average</i>	—3·7	..	—0·21	+0·02	+0·32	—39

A decline in the birth-rate as compared with last year is accompanied by a fractional increase in the death-rate. The infantile mortality is the lowest recorded for the district, with the exception of the year 1903. Dr. Robinson gives the averages of the sub-divisions, as follows :—

	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Infantile Mortality.
Turton	17·4	12·5	nil.	1·15	2·3	74
Edgworth	16·3	11·7	0·39	0·78	3·1	47
Bradshaw	16·8	15·9	3·09	0·44	4·8	78
Belmont	24·3	8·1	1·16	nil.	1·1	nil.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 52 (8 deaths), scarlet fever 45, enteric

fever 2, erysipelas 6 (1 death). Non-notifiable diseases : whooping cough 3 deaths. Forty-two of the diphtheria cases occurred in the Harwood portion of Bradshaw Ward. The originating cause was the cellar of a house which was used as a stable and hen house, the place being in a filthy and insanitary condition, the drains choked, and ventilation practically nil. Notices were served for the abatement of this nuisance, but as they were persistently disregarded, legal proceedings were instituted, and a penalty of £5 inflicted. Whooping cough was prevalent in Edgworth Ward during the first quarter of the year, and instructions in the form of a leaflet relating to the prevention and treatment of this disease, and also measles, were distributed throughout the district.

Hospital Accommodation.—No provision is made for the treatment of ordinary infectious diseases. An arrangement exists with the Bury, &c., Joint Board for the isolation of small-pox cases at the Ainsworth hospital.

Disinfection.—No apparatus. Eighty-two houses and one school were fumigated.

Water Supply obtained from the Bolton Corporation, with the exception of a few outlying farms and detached cottages which obtain their supply from springs and shallow wells. At 2 farms and 10 cottages the supply was found to be unsatisfactory, the storage tanks and filters requiring cleansing.

Sewerage, Scavenging, &c.—Sewage receives treatment at three outfall works—Eagley, Bradshaw, and Belmont. The smoke test was applied to 293 drains. Scavenging is performed in a satisfactory manner by the Authority.

Sanitary Inspection.—One house was found in such a dirty and dilapidated condition, that it was condemned as "dangerous and unfit for habitation." Bakehouses are said

to be in a satisfactory condition, and as a result of the inspection of slaughter-houses, 6 notices in respect of linewashing and 2 in respect of defective drainage were issued and complied with. Numerous inspections of dairies and cowsheds have been made during the year, and in many instances, improvements were effected. A prosecution for wilfully attempting to dispose of unsound meat was instituted, and a fine of £5 imposed. The sanitary condition of the various workshops has been carefully supervised, and the requirements in respect of ventilation, air space, and cleanliness have been observed. Twenty-four water closets and 25 slop-water closets were erected in lieu of old-fashioned privies. The Inspector served 149 notices and secured the abatement of 147 nuisances. Smoke observations numbered 119, legal proceedings being taken in respect of one case, and a fine of £2 2s. imposed.

Tyldesley-with-Shakerley.—(Area in acres, 2,490 ; Estimated Population, 16,500).—*Medical Officer of Health*, B. BLAKEMORE, M.R.C.S. ; *Salary*, £60.

Vital Statistics.

PER 1000 OF POPULATION						
	Birth-rate	Death-rate	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate	Rate of Deaths under 1 year to 1,000 Births
1906	24.9	15.2	3.63	0.78	3.09	194
1905	32.1	15.8	2.70	0.67	1.72	158
Mean of 10 years						
1896-1905	33.8	17.2	2.84	0.70	3.70	171

Increase or Decrease

on—

<i>Previous Year</i>	—7.2	—0.6	+0.93	+0.11	+1.37	+36
<i>Ten Years' Average</i>	—8.9	—2.0	+0.79	+0.08	—0.61	+23

The most noticeable feature of the statistics is the great decline in the birth-rate, the lowest previously recorded being

31.0 per 1,000 of the population in 1904. The infant death-rate is well above the average, and is the highest recorded since 1901. The death-rate is fractionally below last year's average, but the zymotic rate is less favourable owing to the large number of deaths from measles—29 against none in 1905.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 11 (2 deaths), scarlet fever 47, enteric fever 31 (6 deaths), erysipelas 19, puerperal fever 1, continued fever 1. Non-notifiable diseases: measles 29 deaths, whooping cough 1 death, diarrhoea 22 deaths. The greatest number of scarlet fever cases occurred in South Ward, and the least in West Ward, whilst enteric fever had its greatest prevalence in Shakerley Ward and least in East Ward. Measles appeared in epidemic form in June, and continued prevalent until October.

Hospital Accommodation provided at the Leigh, Atherton, and Tyldesley joint sanatorium at Astley. Cases treated: scarlet fever 26, enteric fever 21 (5 deaths).

Disinfection.—Steam apparatus at the hospital available.

Water Supply good, obtained from the Manchester Corporation.

Sewerage, Scavenging, &c.—Sewage is treated at Morley's Hall by precipitation and filtration. These works are being extended. The Authority undertake scavenging.

Sanitary Inspection. Bakehouses (22) and slaughter-houses have been under frequent inspection, and on the whole comply with sanitary requirements. The two common lodging-houses are kept fairly satisfactory, but the habits of a number of the lodgers leave much to be desired in the way of cleanliness. One cowshed has been closed owing to its insanitary condition. A prosecution was instituted for exposing unsound food, a fine of £20 and costs being inflicted.

Seventy privy middens were converted to the water-carriage system. Factories and workshops received 90 visits, and 18 defects were discovered. The Inspector served 328 notices and 291 nuisances were abated.

Ulverston.—(Area in acres, 3,172 ; Census Population, 10,064.)—*Medical Officer of Health*, G. H. PATTERSON, M.R.C.S., D.P.H. ; *Salary*, £105.

Vital Statistics.

		PER 1,000 OF POPULATION.					
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	.....	22.0	14.5	1.28	0.59	2.18	112
1905	.....	22.7	14.4	0.89	0.59	2.48	87
Mean of 10 years							
1896-1905	.....	25.3	16.3	1.12	1.04	2.99	120
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>		−0.7	+0.1	+0.39	..	−0.30	+25
<i>Ten Years' Average</i>		−3.3	−1.8	+0.16	−0.45	−0.81	−8

A decrease in the birth-rate has again to be reported, the rate for the year under review being the lowest ever recorded. The general death, phthisis, respiratory, and infant rates are each below the average of the past decade.

Infectious Diseases.—Cases notified : diphtheria 2, scarlet fever 4, enteric fever 2, erysipelas 1 (2 deaths), puerperal fever 1. Non-notifiable diseases : whooping cough 2 deaths, diarrhoea 11 deaths. It is satisfactory to note that scarlet fever, which has been more or less prevalent since 1901, is now almost entirely absent. One of the enteric fever cases was imported, and it was not possible to account for the other.

Hospital Accommodation.—Joint hospital situate at High Carley available. Cases treated : diphtheria 2, scarlet fever 3, enteric fever 1.

Disinfection.—No apparatus. Three houses fumigated.

Water Supply.—There have been no complaints either as to the quantity or quality of the water.

Sewerage, Scavenging, &c.—From one portion of the district, sewage flows into tanks and after subsidence is discharged into the sea, and from another part it runs direct to the sea. The Authority are reported as carrying out scavenging in a satisfactory manner.

Sanitary Inspection.—It appears that certain houses are provided with insanitary “common yards,” and notices have been served on the owners to put them into proper condition. Bakehouses, slaughter-houses (10), lodging-houses (4), cow-sheds, &c., are, with few exceptions, kept in good condition. No serious defects were revealed in the 117 inspections paid to factories and workshops. Fourteen privies have been substituted by water closets. The Inspector (Mr. Whitlow) served 22 notices for sanitary improvements.

Upholland.—(Area in acres, 4,686 ; Census Population, 4,773).—*Medical Officer of Health*, J. LLOYD JOHNSTONE, M.R.C.S. ; *Salary*, £50

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	37·2	17·5	2·09	1·46	3·35	185
1905	36·2	15·2	1·88	1·25	2·93	75
Mean of 10 years						
1896-1905	35·3	17·9	1·98	0·83	3·89	126
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	+1·0	+2·3	+0·21	+0·21	+0·42	+110
<i>Ten Years' Average</i>	+1·9	−0·4	+0·11	+0·63	−0·54	+59

A very marked increase is recorded in the infantile mortality as compared with the previous year and decennial period

1896-1905. Dr. Johnstone states :—"Ignorance in the management of young children is the principal factor in producing this unfavourable state of things, and I cannot see any likelihood of much improvement obtaining unless more efficient means are taken than the advice given by medical men when called in to see a sick child, obeyed possibly at the time, but, in many cases, disregarded hopelessly when the patient recovers." The appointment of a Lady Inspector to instruct mothers in the proper care and feeding of children is recommended as the best remedy. The birth-rate is the highest recorded since 1899.

Infectious Diseases.—Cases notified : diphtheria 7 (2 deaths), scarlet fever 51 (1 death), enteric fever 2 (1 death), erysipelas 6, measles—notifiable in this district—1. Non-notifiable diseases : diarrhoea 6 deaths. Scarlet fever was more than usually prevalent in the village of Crawford, but cases were reported throughout the year in other parts of the district.

Hospital Accommodation.—A tent (8 beds) is provided for small-pox and a cottage (4 beds) for other infectious diseases. No cases were removed during 1906. This district is one of the constituent authorities under the Wigan and District Small-pox Hospital Order.

Disinfection.—No apparatus.

Water Supply continues "abundant and good."

Sewerage, Scavenging, &c.—Sewage is treated in septic tanks and by filtration at four separate outfall works, viz., Digmoor, Holland Moor, Tontine, and "Main." At the latter, new works—including three open septic tanks with automatic discharging chamber, clinker filter, &c.—were completed in November, 1906.

Sanitary Inspection.—Slaughter-houses "are well attended to and offer no cause for complaint." The condition of dairies

and cowsheds is "improved," more attention being paid to limewashing and ventilation. Factories and workshops have been inspected from time to time and found in "good order." Twenty-six notices were served for the abatement of nuisances.

Urmston.—(Area in acres, 992; Estimated Population, 7,750).—*Medical Officer of Health*, G. E. FRYER, M.R.C.S.; Salary, £50.

Vital Statistics.

PER 1,000 OF POPULATION.							
	Birth- rate.	Death- rate.	Zymotic Death- rate.	Phthisis Death- rate.	Respira- tory Death- rate.	Rate of Deaths under 1 year to 1,000 Births.	
1906	24·5	14·4	1·67	0·90	2·96	163	
1905	21·8	10·4	0·26	0·93	2·40	91	
Mean of 10 years							
1896-1905	22·4	11·7	1·62	0·60	2·13	121	
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	+2·7	+4·0	+1·41	—0·03	+0·56	+72	
<i>Ten Years' Average</i>	+2·1	+2·7	+0·05	+0·30	+0·83	+42	

A rise in the birth-rate is accompanied by increases in all the mortality averages, with the exception of the phthisis rate. The excess in the infant rate is attributed to the large number of deaths from premature birth.

Infectious Diseases.—Cases notified : diphtheria 5, scarlet fever 26, enteric fever 1, erysipelas 3 (2 deaths). Non-notifiable diseases : measles 1 death, whooping cough 4 deaths, diarrhoea (including 2 deaths under one year from "enteritis") 8 deaths. Scarlet fever occurred during the latter portion of the year, the spread of the disease being attributed to the exposure of patients whilst in an infectious state; in one instance legal proceedings were instituted and a conviction

obtained. The enteric fever case was imported into the district whilst in the incubation stage. School closure was resorted to on account of the prevalence of measles.

Hospital Accommodation is available at the Drinkwater Park hospital for cases of small pox, and for other infectious diseases at the Ladywell sanatorium, both belonging to the Salford Corporation. Cases treated : diphtheria 1, scarlet fever 11.

Disinfection.—Bedding is disinfected by superheated steam at the Ladywell hospital, and rooms are fumigated by means of formaldehyde gas.

Water Supply, of excellent quality, obtained from the Manchester Corporation.

Sewerage, Scavenging, &c.—Sewage is treated at the Urmston and Flixton joint works in covered septic tanks and by einder and land filtration. The Mersey and Irwell Joint Committee had occasion to complain of the polluting character of a sample obtained from the storm overflow at these works. Scavenging performed by the Council's employees—team labour being supplied by contract—is said to give satisfaction.

Sanitary Inspection.—Bakehouses and slaughter-houses are described as "satisfactory," whilst the condition of dairies and cowsheds was found to be much the same as in previous years, in many cases the air space being deficient. Factories and workshops were subjected to inspection and found in a good sanitary condition as regards air space, cleanliness, ventilation, &c. Notices served numbered 30, and nuisances abated 48.

The report is in manuscript.

Walton-le-Dale.—(Area in acres, 4,658 ; Census Population, 11,271).—*Medical Officer of Health*, R. TRIMBLE, M.D., D.P.H. ; *Salary*, £50.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	26·0	15·7	2·39	0·88	1·15	139
1905	23·8	15·0	1·33	0·97	2·30	144
Mean of 10 years						
1896-1905	27·3	16·0	2·05	1·06	2·53	151

Increase or Decrease

on—

<i>Previous Year</i>	+2·2	+0·7	+1·06	—0·09	—1·15	—5
<i>Ten Years' Average</i>	—1·3	—0·3	+0·34	—0·18	—1·38	—12

The birth and death rates were increased as compared with last year, but both were below the mean of the preceding decade. The zymotic rate was higher than in 1905, and above the 10 years' average, but the infantile mortality showed a diminution. The phthisis rate declined fractionally; in this connection Dr. Trimble draws attention to the value of the open bedroom window. "It is singular," he says, "how widespread and obstinate is the objection to fresh air, the prejudice against an open window at night being not by any means confined to the working classes."

Infectious Diseases.—(Cases notified : diphtheria 11, scarlet fever 28, enteric fever 17 (5 deaths), erysipelas 5. Non-notifiable diseases : measles 3 deaths, diarrhoea (including 7 deaths under one year from "enteritis") 19 deaths. Eight of the diphtheria cases occurred at Lostock Hall : the extreme dampness of the soil upon which the houses are built, together with the damp surroundings, are looked upon as the cause of the disease in this locality. The continued presence of infectious disease at Bamber Bridge is also attributed to organic fouling and dampness, the former by sewage saturation,

and the latter because of the retention of the subsoil water. In November, 5 cases of enteric fever occurred at the Straits, Hoghton Lane. On enquiries being made, it was ascertained that the five families were supplied with milk from a small farm on the other side of the road, where a case of fever had been under treatment for some time ; this farmhouse is just outside the township boundary. A mild outbreak of measles also occurred this month and rapidly extended throughout the district.

Hospital Accommodation is available for all diseases : 20 beds at the new hospital, and 8 beds at the Bradkirk hospital which is now reserved for small-pox. Cases treated : diphtheria 3, scarlet fever 15, enteric fever 8.

Disinfection.—Seventy lots of beds, bedding, &c., were disinfected in the hot air chamber, and 67 houses were fumigated.

Water Supply obtained partly from a deep well at Brindle, and partly from the Thirlmere main belonging to the Manchester Corporation. Two schools, previously without water, have been supplied during the year.

Sewerage, Scavenging, &c.—Sewage is treated by precipitation and filtration. Scavenging—carried out partly by the Authority and partly by contract—gives satisfaction.

Sanitary Inspection.—Two insanitary houses were closed ; many backyards are badly paved, and there are still a large number of offensive privy middens in the district. During 1906, five of these were converted into pail closets and 15 to the water-carriage system. Bakehouses and slaughter-houses are “ clean and in good order,” and dairies and cowsheds are “ much improved.” One farmhouse was ordered to be closed unless the owner made it fit for habitation. The Inspector (Mr. Moxham) served 52 notices for the abatement of nuisances.

Wardle.—(Area in acres, 3,192; Estimated Population, excluding Institutions, 4,100).—*Medical Officer of Health*, G. MACGILL, L.R.C.P.E.; *Salary*, £40.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	16·8	14·1	0·73	0·97	2·68	130
1905	15·6	13·4	1·21	1·21	3·17	171
Mean of 10 years						
1896-1905	17·9	13·1	1·18	0·92	2·70	135

Increase or Decrease

on—

<i>Previous Year</i>	+1·2	+0·7	-0·48	-0·24	-0·49	-41
<i>Ten Years' Average</i>	-1·1	+1·0	-0·45	+0·05	-0·02	-5

The births and deaths occurring in the Dearnley Workhouse, belonging to the Rochdale Corporation, are excluded from the above statistics. The birth-rate—generally low in this district—is higher than 1905, but less than the 10 years' average. Referring to the infant mortality, Dr. MacGill points out that in the 9 deaths recorded, 7 were fed otherwise than on breast milk. It is also stated that too great a quantity of artificial food is prepared at one time, and what the child does not consume at the first meal is kept in a heated or vitiated atmosphere until the next meal—a pernicious habit.

Infectious Diseases.—Cases notified: diphtheria and membranous croup 3, scarlet fever 2, erysipelas 3. Non-notifiable diseases: measles 1 death, diarrhoea 1 death—a child under one year, registered as “enteritis.”

Hospital Accommodation.—The joint hospital for the Littleborough, Milnrow and Wardle urban districts was opened on 16th February, 1907.

Disinfection.—Houses are disinfected with formaldehyde gas, and bedding, clothing, &c., “stoved.”

Water Supply obtained chiefly from the Rochdale Corporation. “The ‘muddiness’ of terminals might be more frequently attended to, as it is only in one portion of the district that such complaints are made.”

Sewerage, Scavenging, &c.—Sewage is treated in tanks and by intermittent filtration at two works—“Higher” and “Lower.” The Mersey and Irwell Joint Committee have on three occasions complained of unsatisfactory effluents from one or other of these works. Scavenging is satisfactorily performed by contract.

Sanitary Inspection. — Five houses were, by Order, temporarily closed until the defects—dampness, want of ventilation, &c.—received attention. Bakehouses, slaughter-houses, dairies, factories, &c., are in the majority of cases kept in a very clean and sanitary condition. All the 29 notices served for nuisance abatement were complied with. Four smoke observations taken.

Waterloo-with-Seaforth.—(Area in acres, 952 ; Estimated Population, 26,410).—*Medical Officer of Health*, W. S. LIMRICK, L.R.C.P.E. : *Salary*, £120.

Vital Statistics.

PER 1,000 OF POPULATION.

	Birth- rate.	Death- rate.	Zymotic Death- rate.	Phthisis Death- rate.	Respira- tory Death- rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	25·3	10·9	1·89	0·56	1·59	119
1905	26·5	10·5	0·95	0·76	1·57	95
Mean of 10 years						
1896-1905	25·6	11·9	1·38	0·80	2·09	129

Increase or Decrease

on—

<i>Previous Year</i>	—1·2	+0·4	+0·94	—0·20	+0·02	+24
<i>Ten Years' Average</i>	—0·3	—1·0	+0·51	—0·24	—0·50	—10

A reduction in the birth-rate as compared with last year

is accompanied by a fractional increase in the death-rate. The zymotic and infant rates are also increased. The sub-district of Waterloo had a birth-rate of 23·2, and a death-rate of 8·6, and in Seaforth the birth-rate was 27·0 and the death-rate 12·3.

Infectious Diseases.—Cases notified : diphtheria 25 (3 deaths), scarlet fever 81 (3 deaths), enteric fever 23 (3 deaths), erysipelas 12, puerperal fever 1 (fatal). Non-notifiable diseases : measles 8 deaths, whooping cough 7 deaths, diarrhoea (including 13 deaths under one year from “ enteritis ”) 26 deaths. Enteric fever caused more attacks than for some years past, and “ as the result of an enquiry it was found that several of the cases were of persons employed on steamships, &c., trading to the Port of Liverpool but residing in this district, who, it was stated, obtained impure water either on shipboard or at the port of embarkation.” One case was attributed to the consumption of shellfish. An outbreak of chicken-pox in the month of May necessitated closure of the infant department of one of the schools during which time the premises were thoroughly cleansed and disinfected. Voluntary notification of phthisis is invited, and the Council offer to disinfect rooms and bedding after this disease.

Hospital Accommodation.—Patients suffering from infectious disease are, by arrangement, sent to the Liverpool hospitals. Cases treated : diphtheria 8, scarlet fever 31 (3 deaths), enteric fever 10 (2 deaths). The total cost to the district for these patients was £384 ls. 7d.

Disinfection.—The steam apparatus (Washington Lyon’s) was used 252 times for the disinfection of 3,205 articles of bedding, &c., and 148 rooms were fumigated.

Water Supply described as “ good ” obtained from the Liverpool Corporation.

Sewerage, Scavenging, &c.—Sewage is discharged into the estuary of the River Mersey. The smoke test was applied to the drains of 360 houses, and many defects were discovered which could not have been found by a superficial examination ; 492 defective drains have been repaired, relaid or reconstructed. Scavenging is carried out partly by contract and partly by the Authority.

Sanitary Inspection. — House-to-house visitation has been continued, the total number of inspections being 1,486. Bakehouses—periodically inspected—were found to be in a satisfactory condition, verbal intimation securing the necessary linewashing or cleansing. There are no common lodging-houses, but houses let-in-lodgings were kept under observation, 52 visits being made during the year ; in 5 instances, overcrowding was discovered, and one house was found to be in a dirty condition. Dairies, cowsheds, and milkshops continue fairly satisfactory. Alterations have been made in 2 shippens so as to increase the air space. Overcrowding was discovered in 5 shippens, the excess number of cows being removed on attention being drawn to the matter. The 161 inspections of factories and workshops resulted in 100 defects being discovered, 99 of which were remedied. Two privies have been abolished, and in one instance a water closet provided in lieu thereof. Bacteriological examinations were made of samples of milk, canned and potted meats, and ice cream, and the attention of the purveyor was called to any indication of contamination. The Inspector (Mr. Cannell) reports the service of 574 preliminary and 28 statutory notices, the abatement of 2,487 nuisances, houses inspected 1,486, re-inspected 2,437, smoke test applied to house drains 360, smoke observations 25, &c. Legal proceedings were instituted in two instances—one for smoke nuisance and one on account of defective drainage. In the former case an Order to abate was obtained, and in the latter the necessary work was completed before the day of hearing.

Westhoughton.—(Area in acres, 5,560 : Estimated Population, 15,720).—*Medical Officer of Health*, F. TYNDALL, L.R.C.P. (Lond.) : *Salary*, £50.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	29·1	11·7	1·52	0·44	3·05	100
1905	30·7	14·6	2·13	0·45	3·10	128
Mean of 10 years						
1896-1905	33·8	16·6	2·59	0·60	3·73	155

Increase or Decrease

on—

<i>Previous Year</i>	—1·6	—2·9	—0·61	—0·01	—0·05	—28
<i>Ten Years' Average</i>	—4·7	—4·9	—1·07	—0·16	—0·68	—55

“ There is a further decrease in the birth-rate, which has steadily been declining in this as in other districts, for the past ten years, from 39·7 to the present rate of 29·1, the lowest so far recorded.” The death-rate and the infantile mortality are the most favourable on record, and the zymotic rate has not been so low since 1896. The continued decline in the infant death-rate may be attributed in some measure to the establishment of District Nurses, and the distribution by the Registrar of Births, of cards of instruction on the care and feeding of infants.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 18 (4 deaths), scarlet fever 44 (3 deaths), enteric fever 12 (2 deaths), erysipelas 7, puerperal fever 2. Non-notifiable diseases : measles 3 deaths, diarrhoea 12 deaths. The notifications were evenly distributed over the twelve months, with the exceptions of September and November, which were almost free. Several of the diphtheria cases were extremely mild, and “ it would be advantageous to the Council and relatives of the patients if the example of many

Authorities was followed, and bacteriological examinations of throat swabs were permitted to be sent and paid for in doubtful cases." Scarlet fever was rather more prevalent than in 1905, but the number of notifications was still below the average. Two of the enteric fever patients ascribed the disease to eating oysters during a visit to the sea-side, and in a third case the drinking of pit water might very possibly have caused the attack. There was a slight epidemic of measles in December, and school closure was resorted to in one instance.

Hospital Accommodation is provided at Fall Birch, Horwich, jointly with the Horwich and Blackrod Urban Councils. Cases treated: diphtheria 2 (both fatal), scarlet fever 20 (1 death), enteric fever 8 (1 death). Dr. Tyndall states that "the satisfactory reduction in the number of infectious cases notified must in great measure be attributed to the establishment of this institution with its attendant early isolation, as, although only about one-third of the total cases availed themselves of the hospital, the remaining two-thirds were more carefully isolated at home on account of the more stringent conditions imposed upon parents who elected to keep their patients at home." In addition to the above accommodation, a small hospital at Roger's farm is kept in readiness for cases of small-pox, and this district is associated with neighbouring Authorities, under an Order of the County Council, for the purpose of providing a small-pox hospital.

Disinfection.—No proper appliances. Houses and schools "stoved and sprayed."

Water Supply obtained mainly from Bolton.

Sewerage, Scavenging, &c.—The district is served by six sections of sewers, and the sewage is treated by chemical precipitation and irrigation at three outfall works, viz., Roger's farm (60 acres), Dog Holes farm, and Marsh Brook farm (14 acres). The Hulton Lane district is by arrangement drained into the sewers of the Bolton Corporation. A few

houses in Dieconson Lane and Lower Leigh Road are still drained into the adjacent brook, but a small scheme of sewage treatment for this district has been submitted to the Local Government Board, who, after holding an Inquiry, advised the Council that it would be preferable on many grounds that the sewage of this small area should be disposed of at the Wigan Corporation works, rather than that independent works should be established for dealing with it. The Wigan Corporation are being approached in the matter. Scavenging is performed partly by contract and partly by the Authority.

Sanitary Inspection.—Three houses were condemned, and if not repaired will be pulled down. Periodical visits were paid to bakehouses, slaughter-houses, dairies and cowsheds, and factories and workshops, and the various improvements suggested have been carried out. Fifty-five water closets have been provided to take the place of privy middens and pails. The Inspector (Mr. Green) wrote 107 letters and served 7 statutory notices in regard to the abatement of nuisances. “Casual” smoke observations are taken.

Whitefield.—(Area in acres, 1,406; Estimated Population, 6,830).—*Medical Officer of Health*, A. J. YOUNG, L.R.C.P.E.; *Salary*, £20 (no claim).

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	21·5	18·0	1·31	1·02	4·97	183
1905	.....	22·5	14·2	1·02	0·44	3·22	90
Mean of 10 years							
1896-1905	.....	25·5	16·2	2·53	0·78	2·83	145

Increase or Decrease on—

<i>Previous Year</i>	—1·0	+3·8	+0·29	+0·58	+1·75	+93
<i>Ten Years' Average</i>	—4·0	+1·8	—1·22	+0·24	+2·14	+38

A considerable increase in the infant rate is recorded,

while the other mortality averages are also in advance of the previous year. The birth-rate, excluding 1903, is the lowest ever recorded.

Infectious Diseases.—Cases notified : diphtheria 1, scarlet fever 7, enteric fever 11 (1 death), erysipelas 5, puerperal fever 2 (both fatal). Non-notifiable diseases : diarrhœa 8 deaths.

Hospital Accommodation.—The Bury, &c., joint hospitals available for all purposes. Cases treated : scarlet fever 1, enteric fever 2 (1 death).

Disinfection.—No apparatus. Houses, clothing, &c., fumigated with sulphur.

Water Supply obtained from the Bury Joint Board.

Sewerage. Scavenging. &c.—Precipitation and land filtration is the method of sewage treatment. In May, the Mersey and Irwell Joint Committee obtained an Order against the Council compelling them to prepare a satisfactory scheme for the treatment of sewage, and in order to comply with this the Council have made application to the Local Government Board for sanction to borrow £2,590. Scavenging, described as “fairly satisfactory,” is performed by the Authority. Attention is drawn to the habit many householders have of emptying ashes and refuse in the back streets.

Sanitary Inspection.—Dairies, &c., on the whole, are stated to be “very fair,” and bakehouses and slaughterhouses are kept “in good condition.” Inspections of factories and workshops numbered 28. The Inspector (Mr. Wright) served 20 notices for the abatement of nuisances, took 14 smoke observations, &c.

Whitworth.—(Area in acres, 4,485 ; Estimated Population, 9,666).—*Medical Officer of Health*, ALEXANDER WELSH, M.D. : *Salary*, £40.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth rate.	Death rate.	Zymotic Death rate.	Phthisis Death rate.	Respiratory Death rate.	
1906	.....	18·2	15·5	0·72	0·93	4·24	130
1905	.....	20·8	14·4	0·72	0·93	2·69	84
Mean of 10 years							
1896-1905	.....	22·3	16·9	1·17	1·33	3·83	144
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>	.....	—2·6	+1·1	..	..	+1·55	+46
<i>Ten Years' Average</i>	.....	—4·1	—1·4	—0·45	—0·40	+0·41	—14

The birth-rate declined appreciably as compared with 1905, and became the lowest on record for the district. The infantile death-rate, although considerably above the rate for last year, is below the mean of the 10 years 1896-1905.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 7 (3 deaths), scarlet fever 32, enteric fever 6 (1 death), erysipelas 9, puerperal fever 1 death. Non-notifiable diseases : measles 1 death, diarrhoea 2 deaths (both under one year from "enteritis"). Diphtheria was sporadic in character, and in no instance could the disease be traced to one common source. In connection with this disease, the danger of making pets of lower animals is pointed out. Scarlet fever cases of a mild type occurred throughout the year, but the scattered position of the houses affected, excluded the assumption that they were attributable to contaminated milk.

Hospital Accommodation.—A cottage hospital—12 beds—is available for small-pox.

Disinfection.—No apparatus. Houses fumigated numbered 35.

Water Supply, described as “good,” is obtained mainly from the Rochdale Corporation.

Sewerage, Scavenging, &c.—Sewage is treated by precipitation and land filtration. On two occasions the Mersey and Irwell Joint Committee had occasion to complain of unsatisfactory effluents. The Authority carry out scavenging in a satisfactory manner.

Sanitary Inspection.—Bakehouses and slaughter-houses are said to be well kept. Dairies and cowsheds—systematically inspected—show a marked improvement. More attention might with advantage be paid to the udders and teats of the cows before being milked. As a result of inspections of factories and workshops only one defect was discovered. The Inspector (Mr. Cordingley) served 94 notices and secured the abatement of 211 nuisances.

Widnes (Borough).—(Area in acres, 3,110; Estimated Population, 30,604).—*Medical Officer of Health*, C. S. BREBNER, M.D.; *Salary*, £200.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Pnthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	31·2	18·7	3·46	0·58	3·39	195
1905	32·6	16·2	2·41	0·42	2·22	157
Mean of 10 years						
1896-1905	32·9	17·0	1·93	0·48	3·79	173

Increase or Decrease

on—

<i>Previous Year</i>	1·4	+2·5	+1·05	+0·16	+1·17	+38
<i>Ten Years' Average</i>	1·7	+1·7	+1·53	+0·10	—0·40	+22

A rise in the death-rate is noted, but the apparent increase is due to the fact that for the first time the deaths of residents

in Widnes who have died outside the Borough have been included in the death returns. The zymotic and infant rates are unsatisfactory, the high figures being due to the epidemics of diarrhoea and whooping cough. The latter rate is also influenced by want of care on the part of mothers in matters of cleanliness and diet, and the preparation and storage of children's food.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 22 (6 deaths), scarlet fever 57 (3 deaths), enteric fever 67 (11 deaths), erysipelas 13, puerperal fever 2. Non-notifiable diseases : whooping cough 20 deaths, diarrhoea (including 36 deaths under one year from "enteritis") 66 deaths. Many of the enteric fever cases arose in the district through which Bower's Brook runs. "This brook will require attention in the near future, and it would be advisable if some scheme for dealing with the sewage that at present finds its way into the brook, could be advanced." Sixteen of the cases reported as enteric fever were "extremely doubtful." Anti-diphtheritic serum is always kept at the Town Hall, Police Station, and Isolation Hospital, so that a supply is available at any time, and cases may be treated without delay. There was a severe epidemic of whooping cough affecting all parts of the town : of the 20 deaths, 12 were of children under one year of age, and 19 under the age of five years. Diarrhoeal diseases contributed 66 deaths, equal to a rate of 2.1 per 1,000 of the population. Sixty-one of these deaths were amongst children under one year of age. "In Widnes," Dr. Brebner says, "we are sure to have large numbers of these diarrhoeal diseases and enteric fever so long as the privy system of refuse disposal remains." During the summer, placards were posted throughout the town giving suggestions for the prevention of diarrhoea.

Hospital Accommodation.—The isolation hospital at Crow Wood has accommodation for 40 patients, and the small-pox

hospital at Barrow's Green has provision for 8 patients. During the year the foundations for another small-pox pavilion have been laid to be in readiness for the erection of a wooden building should occasion arise. Cases treated : diphtheria 7 (2 deaths), scarlet fever 40 (2 deaths), enteric fever 55 (11 deaths).

Disinfection.—Steam apparatus at hospital available.

Water Supply obtained from Stoeks Well and Netherley pumping station.

Sewerage, Scavenging, &c.—Sewage is discharged into the estuary of the River Mersey. Seavenging, carried out under the supervision of the Health Committee, gives satisfaction.

Sanitary Inspection.—Houses in Pleasant Street were reported as being in an insanitary state, and under the Housing of the Working Classes Act, have been or are being demolished. The houses in Lea Street have been rebuilt, and put into a satisfactory state. The Council have been engaged in sewerage and paving the streets in the quarter of the town where the enteric fever cases occurred. This in itself should be a benefit to the community, and should cause a healthier state of things to exist. There are, however, other streets still unpaved and unsewered, which should also be taken in hand. Slaughter-houses, bakehouses, lodging-houses, and dairies and cowsheds are regularly inspected. New regulations for the management of cowsheds, etc., have been drafted and submitted to the Local Government Board. During the year a prosecution was instituted against a person for having unsound meat in a slaughter-house prepared for sale, a fine of £5 and costs being imposed. Visits to factories and workshops numbered 280, and only 11 defects were discovered. Sixty-four canal boats were examined. Notices served amounted to 286, nuisances abated 1,187, smoke observations 4.

Withnell. — (Area in acres, 3,705 ; Estimated Population, 3,500).—*Medical Officer of Health*, HENRY CASE, L.R.C.P.E. ; *Salary*, £30.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	18·8	14·0	2·85	0·57	2·00	166
1905	.....	17·7	9·1	nil.	0·28	2·00	112
Mean of 10 years							
1896-1905	.....	23·5	12·3	0·75	0·70	2·01	114
<i>Increase or Decrease</i>							
<i>on —</i>							
<i>Previous Year</i>	.....	+1·1	+4·9	+2·85	+0·29	..	+54
<i>Ten Year's Average</i>	.....	—4·7	+1·7	+2·10	—0·13	—0·01	+52

“ The mortality statistics for the year under report are not quite so favourable as in 1905.” Referring to the infant rate—the highest recorded in this district—Dr. Case writes that “ in many cases elementary rules for the treatment and diet of young babies are either neglected or not known, and the reprehensive practice of depriving the child of breast-milk for imperfectly prepared foods in imperfectly cleansed bottles is still in vogue.”

Infectious Diseases.—Cases notified : diphtheria 5 (2 deaths), scarlet fever 20 (1 death), enteric fever 2 (1 death), erysipelas 2, puerperal fever 2 (1 death). Non-notifiable diseases : measles 3 deaths, whooping cough 2 deaths, diarrhoea 1 death—registered as “ enteritis.” “ Measles and whooping cough have been very prevalent, and school closure was resorted to in the Brinscall and Withnell Mill districts with no material effect,” but in Withnell Fold it was the means of diminishing the number of cases of measles.

Hospital Accommodation.—A hospital—situated in the district—is available for ordinary infectious diseases. Cases treated : diphtheria 1, scarlet fever 14.

Disinfection.—Musgrave's steam apparatus provided at the hospital.

Water Supply obtained from Liverpool.

Sewerage, Scavenging, &c.—Sewage is treated by (a) precipitation, polarite beds, and irrigation ; and (b) double contact beds and irrigation. The Authority satisfactorily perform scavenging.

Sanitary Inspection.—Slaughter-houses and factories and workshops are maintained in a "satisfactory condition," while many improvements have been effected at the dairies, &c. Forty nuisances were remedied after the service of 10 notices.

Worsley.—(Area in acres, 5,412 ; Estimated Population, 13,174).—*Medical Officer of Health*, R. SAYERS, M.D. ; *Salary*, £40 (no claim).

Vital Statistics.

PER 1,000 OF POPULATION.

	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	21·2	14·8	2·04	0·91	2·80	150
1905	22·2	14·6	1·68	0·99	3·91	120
Mean of 10 years						
1896-1905	24·0	14·1	1·73	0·91	2·38	137

Increase or Decrease

on—

<i>Previous Year</i>	−1·0	+0·2	+0·36	−0·08	−1·11	+30
<i>Ten Years' Average</i>	−2·8	+0·7	+0·31	..	+0·42	+13

A birth-rate, lower than any previously recorded, is accompanied by an infantile death-rate, which is the highest

for the past 5 years. Referring to the latter rate, Dr. Sayers states that in North and Boothstown Wards nearly one-fourth of all the children born die before completing their first year.

Infectious Diseases.—Cases notified : diphtheria and membranous eroup 27 (3 deaths), scarlet fever 48 (1 death), enteric fever 12 (2 deaths), erysipelas 6, continued fever 1. Non-notifiable diseases : whooping cough 3 deaths, diarrhoea 18 deaths. The scarlet fever attacks were chiefly among children attending All Saints' Schools ; the premises were fumigated, walls sprayed, cellar drains re-laid, and all branch drains examined and flushed. Diarrhoea was somewhat prevalent during the latter part of August, and throughout the month of September, the whole of the deaths taking place in these months, and one-half of them occurred in North Ward. The Medical Officer of Health refers to the ignorance of mothers of the true wants of a child, and says "that a large number of lives could have been saved by proper attention to the feeding and nursing after the diarrhoea began, and many cases prevented altogether."

Hospital Accommodation.—Small-pox accommodation is provided at Linnyshaw Moss, jointly with Swinton, and other infectious cases are removed to the Salford Corporation hospital. Cases treated : scarlet fever 1, enteric fever 1. It is stated that the experiment of treating cases at home, obviously without the isolation attainable in an efficient hospital, "has been tried for the past two years, and certainly if the number of cases occurring is any guide, it is proving successful."

Disinfection.—Steam apparatus at Mode Wheel (Salford) is used for bedding, clothing, &c., of patients removed to hospital. Rooms fumigated numbered 80.

Water Supply obtained from Manchester and Bolton Corporations.

Sewerage, Scavenging, &c.—Sewage is treated at three outfall works—Barton Old Hall, Boothstown, and Wardley. The Mersey and Irwell Joint Committee have had occasion to complain of unsatisfactory effluents from the Barton and Boothstown works. At the former an additional 8 acres of land is being set out for irrigation purposes. Scavenging is performed by contract. The Medical Officer of Health advocates the erection of a refuse destructor.

Sanitary Inspection.—Bakehouses and slaughter-houses have been inspected and generally found in a satisfactory condition. Visits have also been paid to the dairies and cowsheds, and in the majority of cases the conditions are reported as good. Inspections of factories and workshops revealed 7 defects, 5 of which were remedied. Improvements in the closet accommodation at some of the factories are contemplated. Fifty-nine canal boats were examined, 10 infringements of the Act being discovered. The Inspector (Mr. Willeock) served 105 notices, secured the abatement of 234 nuisances, took 27 smoke observations, &c.

RURAL DISTRICTS.

Barton-upon-Irwell.—(Area in acres, 6,872 ; Estimated Population, 8,864).—*Medical Officer of Health*, ALBERT E. BERRY, M.D. (Lond.) ; *Salary*, £60.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	24·5	10·8	1·57	0·45	1·80	64
1905	24·5	12·5	1·02	0·79	1·82	102
Mean of 10 years						
1896-1905	24·5	13·5	1·81	0·80	2·21	127
<i>Increase or Decrease on—</i>						
<i>Previous Year</i>	—1·7	+0·55	—0·34	—0·02	—38	
<i>Ten Years' Average.</i> ..	—2·7	—0·24	—0·35	—0·41	—63	

The birth-rate is identical with last year's average, and the mean of the ten years 1896-1905. The death-rate again shows a satisfactory reduction, and the same remark applies to the infantile mortality ; both these rates are the lowest on record for the district. The township of Barton Moss had a birth-rate of 29 per 1,000 of the population, Davyhulme 26, Clifton 25, and Flixton 23, and the township death-rate varied from 12 per 1,000 in Davyhulme and Clifton, 9 in Flixton, and 8 in Barton Moss.

Infectious Diseases.—Cases notified : diphtheria 4 (1 death), scarlet fever 52 (2 deaths), enteric fever 5 (1 death), erysipelas 5, puerperal fever 1 (fatal). Non-notifiable diseases: measles 1 death, whooping cough 3 deaths, diarrhoea 6 deaths. On account of the prevalence of scarlet fever at Davyhulme,

school closure had to be resorted to. The school was thoroughly cleansed and disinfected before reopening. All the enteric fever cases occurred in Clifton.

Hospital Accommodation.—By arrangement cases from this district are treated at the Salford hospitals. Two beds are reserved for small-pox, and five for other infectious diseases. Cases treated : scarlet fever 10 (1 death).

Disinfection.—Steam apparatus at the hospital said to be available.

Water Supply.—The whole township, except a few scattered dwellings, is supplied by town's water, partly by Manchester, and partly by Bolton.

Sewerage, Scavenging, &c.—Sewage is treated on the bacterial system at two outfall works—Clifton and Davyhulme. The Mersey and Irwell Joint Committee have, on two occasions, drawn attention to unsatisfactory effluents. An agreement has recently been entered into with the Manchester Corporation under which the Corporation will treat the sewage of Davyhulme. Scavenging is carried out by the Authority at Flixton, by contract at Clifton and Davyhulme, whilst at Barton Moss the occupiers—mostly farmers—undertake this work.

Sanitary Inspection.—Bakehouses—including 2 underground—are said to be in a satisfactory condition, whilst slaughter-houses, and dairies and cowsheds are described as “good.” The sanitary condition of workshops has not called for any action, except in one instance, where the closet accommodation was altered. The Inspector secured the abatement of 90 nuisances as the result of the service of 68 notices.

The report is in manuscript.

Blackburn.—(Area in acres, 20,150 ; Census Population, 8,238).—*Medical Officer of Health*, W. R. POLLARD, L.R.C.P.E. ; *Salary*, £40.

Vital Statistics.

		PER 1,000 OF POPULATION.					
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	.....	23·3	13·8	0·97	0·60	1·82	93
1905	.....	16·8	11·5	0·60	0·60	1·33	50
Mean of 10 years							
1896-1905	.....	25·1	15·4	1·32	0·76	2·67	127
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>	.....	+6·5	+2·3	+0·37	..	+0·49	+43
<i>Ten Years' Average</i>	.....	—1·8	—1·6	—0·35	—0·16	—0·85	—34

The birth-rate shows a marked increase on the rate for the previous year. The death-rate, although not so low as in 1905, remains lower than the average death-rate of the decade. The infantile mortality is considerably above the exceptionally low rate of last year, but with that exception, is the lowest recorded. The township birth-rates varied from 40·5 in Dinekley, 39·1 in Ramsgreave, and 27·2 in Eccleshill, to 18·2 in Yate and Pickup Bank, 16·8 in Wilpshire, and 5·49 in Osbaldeston. The highest death-rates were recorded in Witton 23·2, Salesbury 23·04, Osbaldeston 21·9, and the lowest in Eccleshill 9·1, Balderstone 6·5, and Tockholes 6·04.

Infectious Diseases.—Cases notified : diphtheria 14 (2 deaths), scarlet fever 24, enteric fever 6 (2 deaths), erysipelas 5. Non-notifiable diseases : diarrhoea (including 3 deaths under one year from "enteritis") 4 deaths. Whooping cough, although not the cause of any death, necessitated school closure at Cherry Tree, and it was also epidemic at Yate and Pickup Bank. Chicken-pox gave some trouble at Billington.

Hospital Accommodation is available at the Blackburn Corporation and Withnell hospitals. Cases treated : diphtheria 4, scarlet fever 10, and enteric fever 1.

Disinfection.—No proper appliances. Occasionally infected clothing is sent to the Blackburn Corporation disinfecting station.

Water Supply obtained mainly from the Blackburn Corporation, but in some districts wells and private reservoirs are relied upon.

Sewerage, Scavenging, &c.—Sewage is treated at five outfall works, viz., Wilpshire by settlement, filtration, and irrigation ; Mellor, by closed septic tank and irrigation ; Mellor Brook, by closed septic tank and single contact ; Eccleshill, by irrigation ; and Pleasington, by open septic tanks and irrigation. In June, the Local Government Board held an Inquiry into schemes for sewers and sewage works for Billington and Langho. The nuisance caused by the River Darwen at the weir at Feniscowles still exists. Negotiations with the owner of the weir regarding the terms asked for its abolition, are still in progress. Scavenging—left to owners and householders—is not satisfactory.

Sanitary Inspection.—Dairies and cowsheds are more satisfactory than formerly, and the sanitary accommodation at the factories and workshops—to which 31 visits were paid—has been both “increased and improved.” Twenty-eight notices were served calling for the abatement of nuisances. Among the nuisances complained of were the following :—In Mellor—liquid from tank overflowing into a brook : in Wilpshire—ashpit overflowing on highway, sewage running into ditch : in Livesey—houses filthy, closets and ashpits requiring emptying, and in a general insanitary condition ; in Pleasington—house and yard described as dirty, liquid manure running near dwelling.

Burnley.—(Area in acres, 42,325 ; Estimated Population, 18,000).—*Medical Officer of Health*, HENRY J. ROBINSON, M.R.C.S. ; *Salary*, £80.

Vital Statistics.

PER 1,000 OF POPULATION.							
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births	
1906	23·8	14·8	1·72	0·55	2·77	121	
1905	22·3	12·2	0·61	0·72	2·55	104	
Mean of 10 years							
1896-1905	22·4	12·9	1·24	0·80	2·65	121	

Increase or Decrease

on—

<i>Previous Year</i>	+1·5	+2·6	+1·11	−0·17	+0·22	+17	
<i>Ten Years' Average</i>	+1·4	+1·9	+0·48	−0·25	+0·12	..	

With the exception of the phthisis rate, all the averages are above those recorded in 1905, the birth and death rates being the highest since 1898 and 1895 respectively.

Infectious Diseases.—Cases notified : diphtheria and membranous croup 10 (3 deaths), scarlet fever 53 (1 death), enteric fever 13 (2 deaths), erysipelas 11 (1 death), puerperal fever 2. Non-notifiable diseases : measles 9 deaths, whooping cough 1 death, diarrhoea (including 5 deaths under one year from “enteritis”) 15 deaths. Roughlee National School had to be closed owing to scarlet fever, and school closure was resorted to at Sabden, Worsthorne, Briercliffe, Blacko, and Simonstone, in consequence of outbreaks of measles which prevailed extensively throughout the district. Fourteen cases of infectious disease occurred at farm houses, and special precautions were taken to reduce the possibility of infection by milk.

Hospital Accommodation provided at the Burnley, &c., joint sanatorium at Kibble Bank for ordinary infectious

diseases, and at Crown Point for small-pox. Cases treated—diphtheria 4, scarlet fever 30 (1 death), enteric fever 4.

Disinfection.—The Burnley Corporation steam apparatus (Defries) used “occasionally.” Infected premises disinfected by sulphur or formaldehyde gas, or sprayed with formalin solution.

Water Supply.—Townships of Simonstone and Altham supplied by Padiham Urban District Council and the Acerington Joint Water Board; Barley, Blacko, Old Laund Booth, Ronghlea, Wheatley Carr, from the Nelson Corporation; Briercliffe, Brunshaw, Habergham Eaves, Reedley Hallows, Worsthorpe, Ightenhill, from the Burnley Corporation; Cliviger, Foulridge, Read, from the Council’s own reservoirs; Huncoat from the Acerington Joint Board: whilst at Sabden, Hapton, and Dunnoekshaw the waterworks are owned privately. Twenty-two polluted and insufficient water supplies were dealt with.

Sewerage, Scavenging, &c.—The sewers of the following townships are connected to the Burnley Corporation mains, viz., Briercliffe, Brunshaw, Habergham Eaves, Hapton, Reed, Reedley Hallows, and Simonstone. At Altham, the sewage is treated by septic tanks and continuous filtration: at Huncoat by open septic tank and double contact filters, and at Sabden by intermittent downward filtration. Improvements at the Altham works have been carried out during the year, and a contract has been let for alterations to the Sabden works. The following townships are scavenged by the Council’s own vehicles and labour:—Brunshaw, Cliviger, Hapton, Higham, Huncoat, Old Laund Booth, Read, Reedley Hallows, Sabden, Simonstone, and Worsthorpe. Altham, Briercliffe, Blacko, Foulridge, and Habergham Eaves are scavenged by contract, and in each case the work has been done satisfactorily.

Sanitary Inspection.—Slaughter-houses, and bakehouses on the whole, give satisfaction. Dairies and cowsheds received numerous inspections, and notices were issued on account of structural defects or breaches of regulations. Fifty-six visits to factories and workshops revealed 7 defects, 6 of which were remedied. Twenty-two canal boats underwent examination. Two carcasses of beef were condemned as unfit for human food and destroyed. The Inspectors (Messrs. Edmondson and Hewes) served 220 preliminary and 29 statutory notices, and as a result 435 nuisances were abated. Twelve smoke observations taken.

Bury.—(Area in acres, 12,014: Estimated Population, 8,380).—*Medical Officer of Health*, J. W. Cook, M.B.; *Salary*, £95.

Vital Statistics.

		PER 1,000 OF POPULATION.					
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	.....	21·0	13·4	1·55	0·59	1·90	130
1905	.....	19·9	13·2	1·20	0·24	2·76	96
Mean of 10 years							
1896-1905	.....	21·1	13·5	1·32	0·57	2·68	124
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>	.....	+1·1	+0·2	+0·35	+0·35	−0·86	+34
<i>Ten Years' Average</i>	.....	−0·1	−0·1	+0·23	+0·02	−0·78	+6

The zymotic, phthisis, and infant rates are all higher than 1905, and the 10 years' average. In reviewing the last mentioned mortality, the Medical Officer states that the chief cause of so many infantile deaths is "the lack of maternal care both before and after the birth of the child." He suggests that "all women who are pregnant should be prohibited from working during the latter months of pregnancy, and for at

least three months after the birth of the child. If this were so, there would not be the same inducement for mothers to rear their children on artificial food." The township birth-rates are as follows :—Ainsworth 17·8, Birtle-cum-Bamford 22·9, Outwood 25·6, Unsworth 20·5, Walmersley-cum-Shuttleworth 16·5 ; and the death-rates :—Ainsworth 17·8, Birtle-cum-Bamford 13·4, Outwood 6·8, Unsworth 15·8, Walmersley-cum-Shuttleworth 8·2.

Infectious Diseases.—Cases notified : diphtheria 3 (1 death), scarlet fever 34 (3 deaths), enteric fever 6 (1 death), erysipelas 2. Non-notifiable diseases : measles 5 deaths, diarrhœa 3 deaths. Two-thirds of the scarlet fever cases occurred in Ainsworth. Measles was prevalent in Hollins and Unsworth during the spring, school closure at both localities being resorted to.

Hospital Accommodation.—The Bury, &c., joint hospital at Ainsworth (for small-pox) and Deardens (other infectious diseases) available. Cases treated : scarlet fever 7, enteric fever 1.

Disinfection.—A Thresh steam apparatus at the hospital (Deardens) available. Rooms disinfected numbered 83.

Water Supply.—Most of the district is supplied by the Bury and District Joint Water Board, and during the year the mains were extended to Ringley and Prestolee. Ainsworth acquires a supply from the Bolton Corporation, and Bamford from the Heywood and Middleton Water Board. Most of the farms and outlying parts of the district have private supplies.

Sewerage, Scavenging, &c.—Sewage is treated in septic tanks and by filtration at Prestolee, and by irrigation at Hollins. In April, the Mersey and Irwell Joint Committee complained of an unsatisfactory sample of effluent from the latter works, and the necessary improvements are now being carried out. The Local Government Board held an Inquiry

in April respecting the application of the Council for borrowing powers for the construction of works at Unsworth and Banford. The Rural Council has come to an agreement with the Corporation of Bolton for the treatment of the sewage from the Township of Ainsworth at the Hacken outfall works. Scavenging is carried out by arrangement with farmers, and is said to be "fairly satisfactory."

Sanitary Inspection.—The sanitary condition of dairies and cowsheds is said to be "satisfactory" on the whole; improvements in the way of drainage, ventilation, &c., have been made at 8 of these places. Three defects were revealed in the 63 inspections paid to factories and workshops; these premises, together with bakehouses and slaughter-houses, give satisfaction. "A great deal of time and trouble has been expended in dealing with nuisances from foul privy middens, and also with percolations of faecal matter arising therefrom." The Inspector (Mr. Hurst) was instrumental in securing the abatement of 189 nuisances after the service of 66 notices. Smoke observations taken 18.

Chorley.—(Area in acres, 39,988: Estimated Population, 20,800).—*Medical Officer of Health*, J. A. HARRIS, M.D. (Lond.); *Salary*, £150.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth rate.	Death rate.	Zymotic Death rate.	Phthisis Death rate.	Respiratory Death rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	25.9	13.0	0.96	0.62	1.87	116
1905	25.8	14.8	0.78	0.88	3.28	121
Mean of 10 years						
1896-1905	28.4	15.1	1.24	0.80	2.80	131
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	+0.1	-1.8	+0.18	-0.26	-1.41	-5
<i>Ten Years' Average</i>	-2.5	-2.1	-0.28	-0.18	-0.93	-15

The birth-rate remains practically the same as last year,

whilst the death-rate is the lowest so far recorded for the district. The infantile death-rate is also below any for the past decade, with the exception of the year 1901. The death-rates of the sub-divisions were as follows: Chorley 11·4, Brindle 13·5, Croston 10·8, Leyland 15·6, and Rivington 14·4. The lowest infantile mortality occurred in Brindle and Croston sub-districts, and the highest in Leyland and Rivington.

Infectious Diseases.—Cases notified: diphtheria 44 (6 deaths), scarlet fever 65 (3 deaths), enteric fever 11 (2 deaths), erysipelas 26 (1 death), continued fever 1, puerperal fever 2 deaths. Non-notifiable diseases: whooping cough 1 death, diarrhoea (including 4 deaths under one year from “enteritis”) 8 deaths. Scarlet fever of a mild type was prevalent during the year, and, in one instance, school closure was resorted to. The decrease in the number of cases of enteric fever is said to be largely due to the provision of better water supplies, the systematic sewerage of many townships, and public scavenging. Measles was prevalent in some of the townships at different periods of the year, and in three instances it was necessary to close the schools. At Wheelton, a school was closed on account of whooping cough.

Hospital Accommodation for ordinary infectious diseases provided at the Chorley, &c., joint hospital at Heath Charnock. An arrangement exists whereby cases of small-pox occurring in the Joint Board's districts can be removed to the Finnington hospital belonging to the Blackburn Corporation. Cases treated: diphtheria 7 (1 death), scarlet fever 27, enteric fever 2 (1 death), puerperal fever (case notified as enteric fever) 1 death.

Disinfection.—The Chorley Corporation steam appliances used for infected clothing, bedding, &c. Upon the recommendation of the Medical Officer of Health, the Council have purchased formalin spray producers, and fumigation of all

houses in which cases of infectious disease occurred has been carried out.

Water Supply.—Coppull is supplied from the Liverpool Corporation mains; Anderton, Heath Charnock, Whittle, Clayton, Heapey, and Wheelton, from the Thirlmere pipe belonging to the Manchester Corporation. Plans and estimates for the carrying out of a scheme for supplying the western portion of the district with water from the Thirlmere aqueduct are awaiting the approval of the Local Government Board, and it is hoped sanction will soon be received and the work proceeded with, as this portion of the district is very insufficiently supplied with water, and the inhabitants urgently desire the completion of the scheme.

Sewerage, Scavenging, &c.—Sewage disposal works are in operation in the townships of Whittle and Clayton, Heapey and Wheelton, Anderton and Heath Charnock, Coppull, Eccleston, and Euxton. Extensions at the Coppull main works have been carried out, two precipitating tanks and two filters having been constructed. Scavenging, performed by contract in Coppull and Euxton, is described as satisfactory. The Council have decided to enter into contracts for the removal of house refuse, &c., in Rivington, Anderton, and Heath Charnock, and it is hoped that a similar course will be adopted for Wheelton, Clayton-le-Woods, and Whittle-le-Woods.

Sanitary Inspection.—Bakchouses and slaughter-houses are described as "generally good." A systematic inspection of dairies and cowsheds is being carried out, and a preliminary report upon their condition has been prepared; these premises are not subject to regulations. Factories and workshops received attention, and, as a rule, were found in a sanitary condition. One hundred and seventy-three notices were served requiring the abatement of nuisances, and practically all were complied with.

Clitheroe (Lancashire Portion).—(Area in acres, 32,231 ; Census Population, 5,845).—*Medical Officer of Health*, T. THORNTON MACKLIN, M.D., D.P.H. ; *Salary*, £50.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	23·4	15·7	1·19	0·17	1·19	102
1905	17·1	11·6	1·19	0·17	1·19	80
Mean of 10 years						
1896-1905	20·5	14·4	0·94	0·80	2·47	101

Increase or Decrease

on—

<i>Previous Year</i>	+6·3	+4·1	..	..	..	+22
<i>Ten Years' Average</i>	+2·9	+1·3	+0·25	−0·63	−1·28	+1

Since 1897, the birth-rate has not been so high as that of the year under report. The general death and infant rates show a decided increase over 1905, but the remaining averages are exactly the same. Of the deaths under one year 9, or 64 per cent., were due to prematurity, and of this number, 5 were children of mill workers, “ which points probably to a too prolonged continuance at work before parturition. Many women work up to the very last day, and go back after confinement at too early a period.”

Infectious Diseases.—Cases notified : scarlet fever 4, enteric fever 6 (1 death), erysipelas 1, continued fever 1 death. Non-notifiable diseases : measles 3 deaths, diarrhœa 2 deaths. In the enteric fever cases, although “ every effort was made to trace the source of infection, nothing definite could be found to throw any light on the matter.” Dr. Macklin suggests the possibility of the causation of this disease by dust raised by motor cars and other vehicles, settling on fruit, fish, &c., when being hawked in the street, or even when stored in the

house. It was necessary to close the Chatburn school for three weeks in the summer on account of a very severe epidemic of measles.

Hospital Accommodation for small-pox—joint with Clitheroe (B.)—is the only provision.

Disinfection.—No apparatus. Houses, clothing, &c., disinfected with sulphur.

Water Supply.—"In some places the supply is very good so far as abundance and steadiness are concerned, but in many cases hard and unpleasant, as in Whalley." Several houses at Chipping are now provided with a good service, "but there are still numerous places where the supply is insufficient and defective."

Sewerage, Scavenging, &c.—At Chatburn and Whalley sewage is treated by irrigation, and at Barrow by continuous precipitation and irrigation. Dr. Macklin states "the district taken as a whole, cannot be said to be quite sufficiently drained and sewered." Scavenging is satisfactorily performed by contract at Chatburn, but this work in the other subdivisions devolves upon the householder.

Sanitary Inspection.—"There is some degree of inadequacy of house accommodation for the working classes in the district, especially in Whalley." Dairies and cowsheds, for the most part, give satisfaction. The condition of bake-houses and the 9 registered slaughter-houses is described as "good." No defects were discovered in the 33 inspections of factories and workshops. Privies have been converted to the pail system at Chipping and Ravenhead, and to water closets at Hurst Green and Chatburn. Thirty-six notices were served for sanitary amendments.

Fylde.—(Area in acres, 38,768; Estimated Population, 11,045).—*Medical Officer of Health*, CHARLES COURT, M.B.; *Salary*, £50.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	22·2	12·0	1·08	nil.	1·90	117
1905	24·3	12·1	1·30	0·27	1·58	99
Mean of 10 years						
1896-1905	26·9	14·5	1·29	0·78	1·97	117
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	—2·1	—0·1	—0·22	—0·27	+0·32	+18
<i>Ten Years' Average</i>	—4·7	—2·5	—0·21	—0·78	—0·07	..

The gradual decline in the birth-rate continues, the rate for the year under review being the lowest on record for the district. The death-rate and zymotic rate are also below the average of the preceding decade, whilst the infantile mortality is exactly the same. The township death-rate varied from 33·7 in Newton-with-Seales, 17·1 in Marton, 16·8 in Medlar-with-Wesham, 15·0 in Warton, to 5·4 in Little Marton, 5·2 in Weeton-with-Preese and Westby-with-Plumpton, and 2·5 in Carleton.

Infectious Diseases.—Cases notified: diphtheria 9 (1 death), scarlet fever 11, enteric fever 10 (1 death), erysipelas 2, puerperal fever 1. Non-notifiable diseases: whooping cough 2 deaths, diarrhoea (including 2 deaths under one year from “enteritis”) 8 deaths. Several of the diphtheria and enteric fever cases were probably caused by insanitary conditions, such as defective drainage, stagnant sewage, insanitary closets, &c., and a number of the scarlet fever attacks were attributed to personal contact with infected persons.

In February, March, and July, the schools were closed for varying periods from two to four weeks in Wesham, Treales, Carleton, and Marton, owing to the prevalence of whooping cough and mumps.

Hospital Accommodation available for small-pox at Elswick, and for ordinary infectious diseases at Moss Side (Fylde Joint). Cases treated : diphtheria 3, scarlet fever 9, enteric fever 3.

Disinfection.—No apparatus. Twenty-three houses and 2 schools fumigated.

Water Supply.—The greater part of the district is supplied by the Fylde Water Board.

Sewerage, Scavenging, &c.—Sewerage schemes are in operation at Wesham, Freckleton, and Carleton. At the latter place a new sewer has just been completed, and at Wrea Green a sewerage scheme has been partially carried out. Twelve "old" and 44 "new" drains were subjected to the smoke test. Scavenging is "fairly satisfactory"; it is undertaken by contract in Wesham, but in the other parts of the district the tenants are responsible.

Sanitary Inspection.—A cottage at Greenhalgh was condemned owing to its dilapidated condition. Slaughter-houses, on the whole, are satisfactory, but it was necessary to complain about two of these premises at Marton where the disposal of offal and the condition of the tanks, &c., were not satisfactory. Dairies and cowsheds are said to have been "well kept." Factories and workshops were inspected on 32 occasions; new water closets have been fixed at some of the mills. The Inspector (Mr. Jolly) secured the abatement of 103 nuisances as the result of the service of 60 preliminary and 10 statutory notices.

Garstang.—(Area in acres, 57,380 ; Census Population, 10,437).—*Medical Officer of Health*, THOMAS FISHER, M.R.C.S. ; *Salary*, £70.

Vital Statistics.

		PER 1,000 OF POPULATION.					
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	.....	22·9	12·6	0·57	0·86	1·34	58
1905	.....	21·1	11·5	0·28	0·86	2·20	76
Mean of 10 years							
1896-1905	.....	22·7	13·2	0·66	0·61	2·20	89
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>		+1·8	+1·1	+0·29	..	—0·86	—18
<i>Ten Years' Average</i>		+0·2	—0·6	—0·09	+0·25	—0·86	—31

As compared with the previous year the birth, death, and zymotic rates all show an increase, but the rate of deaths of infants under one year to 1,000 births is more favourable. The latter average is below any previously recorded. The township death-rates varied from 22·22 in Inskip-with-Sowerby, 21·80 in Hambleton, 21·12 in Winmarleigh, 18·62 in Stalmine-with-Staynall, to 8·81 in Nether Wyresdale, 7·44 in Bleasdale, 7·09 in Out Rawcliffe, 5·80 in Cabus, and nil in Cleveley, Holleth, and Kirkland.

Infectious Diseases.—Cases notified : diphtheria 6, scarlet fever 34 (1 death), enteric fever 12, erysipelas 8 (1 death). Non-notifiable diseases : measles 2 deaths, whooping cough 3 deaths. Six schools were closed on account of infectious diseases ; at Stalmine owing to the prevalence of scarlet fever, and at Garstang, Churehtown, Kirkland, Hambleton, and Upper Rawcliffe on account of measles. Arrangements for the voluntary notification of phthisis have been made—a fee being paid—but not a single case has been notified during the year. “ Great benefits ” are being derived from the operation of the Midwives Act, 1902.

Hospital Accommodation.—The only provision is for small-pox at the Elswick joint hospital. The Council has given “much time and discussion” to this subject, but nothing practical has been evolved.

Disinfection.—No proper appliances. Five schools were disinfected after being closed on account of infectious diseases.

Water Supply.—Continual progress is being made. Fylde water is supplied to various parts of the district. The main to the township of Inskip is practically complete. So far no definite progress has been made in Pilling, Bilsborrow, and Myerseough, all of which are in want of water. A supply to Hambleton is urgently required. Samples of well water are constantly taken, and rarely is it found to be wholesome. The ordinary wells of the district become “year by year more dangerous and risky.”

Sewerage, Scavenging, &c.—“The sewage works on the south side of Bowgreave, in the township of Barnacre-with-Bonds, continue to give satisfaction, and the works on the north side of Bowgreave, which are on the International system, work as satisfactorily as can be expected under this system.” Mr. Cook, the Surveyor and Inspector, has prepared plans and sections for the sewerage of the village of Seorton, and for portions of the township of Barnacre-with-Bonds. Additional lengths of sewer have been laid in Great Ecclestone and Catterall, and the putting down of a sewage tank in the latter place is in hand. A system of sewerage for the township of Hambleton is a necessity. Scavenging in Garstang—carried out by contract—is satisfactory, and at Calder Vale, where the work is performed by the Council’s employees, it is well done. As expressed in former years, it would be advisable for the Council to undertake scavenging in the more congested areas in the district.

Sanitary Inspection.—Three houses, unfit for human habitation, were condemned. Bakehouses (10) and slaughter-houses (10) are clean and well kept, but the condition of the dairies and cowsheds is not what could be desired. Regulations in respect of the latter are not in force in the district, but their adoption in a modified form is contemplated. Building bye-laws are also under consideration. Few causes of complaint were discovered on the 68 inspections of factories and workshops. Fifty-three canal boats were examined, 4 infringements of the Acts being noted. Notices served numbered 98, nuisances remedied 221.

Lancaster.—(Area in acres, 54,503 ; Estimated Population, 8,943).—*Medical Officer of Health*, G. R. PARKER.
L.R.C.P. : *Salary*, £50.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	23·5	12·3	1·23	0·44	0·89	113
1905	21·5	13·5	0·89	0·89	1·23	88
Mean of 10 years						
1896-1905	26·6	14·7	1·23	0·92	2·02	119

Increase or Decrease

on—

<i>Previous Year</i>	+2·0	−1·2	+0·34	−0·45	−0·34	+25
<i>Ten Years' Average</i>	−3·1	−2·4	..	−0·48	−1·13	−6

The birth-rate is higher and the death-rate lower, but the low infantile mortality of 1905 has not been maintained. The rates of the sub-districts were as follows :—

	Birth- rate.	Death- rate.	Zymotic rate.	Infantile Mortality			
Ellel	25·16	..	10·10	..	2·22	..	107
Heaton ..	26·43	..	11·74	..	nil.	..	175
Warton ..	21·62	..	13·77	..	0·47	..	120

Infectious Diseases.—Cases notified : diphtheria 4 (1 death), scarlet fever 25 (1 death), enteric fever 10 (2 deaths), erysipelas 6. Non-notifiable diseases : whooping cough 2 deaths, diarrhoea 5 deaths. Scarlet fever had a much reduced prevalence as compared with 1905, when 95 cases were notified. Whooping cough was extensively prevalent in the village of Calgate.

Hospital Accommodation.—By arrangement, patients from this district are admitted into the Lancaster Borough sanatorium. Cases treated : scarlet fever 16, enteric fever 1 (fatal).

Disinfection.—No apparatus.

Water Supply is obtained from the Lancaster Corporation, the Manchester Corporation pipe line from Thirlmere, wells, and ditches. Some improvement has taken place in the supply to some of the farms in the neighbourhood of Cockerham, but many of the farms are in a most unsatisfactory state as regards water. The supply to isolated cottages and those in the smaller villages is also in the great majority of cases very bad. The difficulty in the way of obtaining a better supply is mainly, if not altogether, a question of expense, and water cannot be publicly provided at the sanctioned cost.

Sewerage, Scavenging, &c.—There are seven separate sewerage systems under the control of the Authority. The Warton scheme is being only slowly completed, delay having taken place through unforeseen circumstances. The Bolton sewer has been extended, but no progress has been made with the Calgate sewer owing to opposition of the land owners and certain financial reasons. Contracts for the removal of house refuse are now in operation in five villages, viz., Warton, Bolton, Glasson Dock, Calgate, and Silverdale. Dr. Parker recommends more frequent removal of refuse, especially in the summer months.

Sanitary Inspection.—Systematic inspection was as usual carried out, every village in the district being inspected during 1906. The condition of a number of houses is very far from satisfactory, and the Medical Officer suggests that the question of the betterment of the houses of agricultural labourers should receive consideration, as by this means the labourers' families might be induced to remain in the country. Bake-houses are "very fair," and slaughter-houses "much improved." The condition of dairies and cowsheds, although some improvement has taken place, still leaves much to be desired. Better floors, better drainage, and more frequent and thorough cleansing of the walls, &c., are required. Attention is also required in regard to the provision of more air space. The chief defects discovered on inspections of factories and workshops were want of cleanliness and omission to limewash. Twenty-nine canal boats examined were clean and in good order. The Inspector (Mr. Littlefair) secured the abatement of 239 nuisances, and served 126 notices.

Leigh.—(Area in acres, 11,574; Estimated Population, 9,000).—*Medical Officer of Health*, C. CHALLINOR, L.R.C.P. (Lond.), D.P.H.; *Salary*, £100.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	30·6	14·8	2·44	0·77	1·55	166
1905	31·4	16·9	2·79	1·11	2·79	148
Mean of 10 years						
1896-1905	32·5	16·6	2·09	0·74	3·40	143
<i>Increase or Decrease on—</i>						
<i>Previous Year</i>	—0·8	—2·1	—0·35	—0·34	—1·24	+18
<i>Ten Years' Average</i>	—1·9	—1·8	+0·35	+0·03	—1·85	+23

A birth-rate, lower than any during the past 10 years,

is accompanied by a death-rate which, with the exception of 1899, is also below any previously recorded for the district. The highest birth-rate was attained in the September quarter (34·2), and the lowest in the December quarter (25·4), while September quarter had the greatest death-rate (18·6), and June quarter (12·4) the least. The various averages of the four sub-divisions are set out below :—

	Birth rate.	Death- rate.	Zymotic rate.	Infant Mortality.
Lowton	32·04	16·0	1·25	190
Kenyon	7·14	3·5	nil.	nil.
Astley	38·51	17·9	4·72	184
Culcheth . .	24·57	12·2	nil.	103

Referring to the infant rate, it is pointed out that diarrhœa and its ally, enteritis, are the chief causes of the mortality, and it is only by a careful consideration of the rearing of infants that it can be hoped to be reduced.

Infectious Diseases.—Cases notified : diphtheria 2 (1 death), scarlet fever 25, enteric fever 8 (2 deaths), erysipelas 12 (1 death). Non-notifiable diseases : measles 4 deaths, whooping cough 1 death, diarrhœa 14 deaths. Enquiry into the fatal case of diphtheria revealed the fact that the drainage of the house was unsatisfactory, and this received attention. Three cases of enteric fever which occurred at Astley Moss were attributed to the unsatisfactory water supply. The district is moss land, and the conditions prevailing are somewhat primitive, the houses being of wood, and the water supply obtained from surface land in a state of cultivation. Every precaution was taken to prevent the spread of the disease, the water being boiled before use for domestic purposes ; no further case has since occurred. Measles was prevalent in Astley during the month of May, and again in the month of October, and it was deemed advisable to adopt school closure. The Medical Officer of Health remarks that, in his opinion, it is not always “ beneficial to close the schools, but the closure of infants’ schools

on the first case of measles occurring would be an advantage. The younger the child the more susceptible is it to such diseases as measles and scarlet fever." With regard to the notification of phthisis, Dr. Challinor remarks that "no good can result unless the information is followed by special attention to the cases in the way of providing hospital accommodation, personal visiting, and periodical supervision, with systematical instruction of the people concerned as to how disinfection and precautions can be taken to prevent the spread of the disease."

Hospital Accommodation provided for all purposes by the Leigh, &c., Joint Board. Cases treated: scarlet fever 10, enteric fever 6 (2 deaths).

Disinfection.—No apparatus.

Water Supply, described as satisfactory, is obtained for Lowton and Kenyon from Liverpool; Culeheth from Warrington, and Astley from Manchester. Outlying parts of the district are supplied by wells.

Sewerage, Scavenging, &c.—Sewage undergoes treatment at four outfall works, namely, Lowton Common, Lowton St. Mary's, Glazebury, and Astley, but the Mersey and Irwell Joint Committee have had occasion to complain of unsatisfactory effluents obtained from three of the works during the year. At Glazebury an additional area of land for the construction of filter beds has been acquired. Twenty-two houses have been connected to the sewers at Astley. Seavenging is said to be satisfactorily carried out by arrangement with tenants and farmers.

Sanitary Inspection.—The Medical Officer of Health again points out that in some parts of the district, especially in Lowton and Astley, urban powers ought to be obtained for the purpose of enforcing the better condition of back yards

and passages. Dairies and cowsheds were kept under supervision, 56 notices being served for sanitary improvements. Fifty-five inspections of factories and workshops revealed 9 defects, all of which were remedied. Canal boats examined numbered 179. The Inspector served 255 notices, and secured the abatement of 174 nuisances.

Limehurst.—(Area in acres, 4,772 : Estimated Population, 10,700).—*Medical Officer of Health*, THOMAS COOKE, M.R.C.S. : *Salary*, £40.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	25·7	12·5	1·77	1·30	2·05	123
1905	26·3	13·4	1·21	1·02	2·80	113
Mean of 10 years						
1896-1905	30·3	16·9	1·71	1·24	3·10	146

Increase or Decrease

on—

<i>Previous Year</i>	—0·6	—0·9	+0·56	+0·28	—0·75	+10
<i>Ten Years' Average</i>	—4·6	—4·4	+0·06	+0·06	—1·05	—23

An improvement in the death, respiratory, and infant rates, as compared with the 10 years' averages, is experienced, the first-named in fact being the lowest ever recorded. The birth-rate continues its downward tendency.

Infectious Diseases.—Cases notified : small-pox 23, membranous croup 1 (fatal), scarlet fever 23, erysipelas 1. Non-notifiable diseases : measles 4 deaths, diarrhoea (including 3 deaths under one year from " enteritis ") 14 deaths. The monthly incidence of the small-pox cases was—January 1, April 1, June 4, July 12, August 3, November and December 1 each. Twenty cases occurred in Waterloo and three at Bardsley, and all received hospital isolation. A resident of

Waterloo knowingly took three of his children, infected with the disease, to a small hut on the Ashton Moss, and only after an extensive search were they found and removed to hospital. For this the man was successfully prosecuted. Happily not one of the cases notified proved fatal, although 13 were of unvaccinated persons. Measles appeared at Bardsley in October and an infant school had to be closed for four weeks. A similar outbreak at Woodhouses in the following month necessitated closure of two schools.

Hospital Accommodation.—The only provision is for small-pox at Hartshead—joint with Ashton (B.), &c. The 23 cases of small-pox above referred to were treated there.

Disinfection.—No proper appliances.

Water Supply.—The main supply is obtained from (a) Ashton, Stalybridge, and Dukinfield Joint Board, and (b) Oldham Corporation. A very small area still depends upon springs and wells, but being the upland portion of the district the danger of pollution is remote.

Sewerage, Scavenging, &c.—Sewage is treated in tanks and by intermittent filtration at Bardsley, Cross Bank, and Waterloo. House connection to the sewers in the three parishes is being rapidly pushed forward. In January and June unsatisfactory samples of effluent from the Bardsley works were the subject of complaint by the Mersey and Irwell Joint Committee, but certain improvements have since been carried out. “The Council is now applying for powers to do away with the old method of emptying ash-pits, &c., by the landlord or tenant, which system has lately given rise to numerous complaints.”

Sanitary Inspection.—“House accommodation is fairly adequate, being mainly of the cottage or artisan class.” In one or two lots of property, however, the closet accommodation

is insufficient. Nine houses were condemned; 3 of these were demolished and 6 made habitable. Bakehouses, slaughter-houses, and factories and workshops all give satisfaction, but some of the dairies and cowsheds "are in a very dilapidated condition." "The privy ashpit system is gradually being replaced by the fresh and waste-water systems." Ninety-seven notices were served by the Inspector, and all the nuisances complained of were remedied. Smoke observations numbered 40.

Lunesdale.—(Area in acres, 76,267; Census Population, 6,948).—*Medical Officer of Health*, W. H. STOTT, L.R.C.P.E.; *Salary*, £20.

Vital Statistics.

		PER 1,000 OF POPULATION.					
		Birth rate.	Death rate.	Zymotic Death rate.	Phthisis Death rate.	Respiratory Death rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	.....	17.9	12.3	0.71	0.28	1.29	72
1905	.....	21.8	12.2	0.86	0.28	1.00	92
Mean of 10 years							
1896-1905	.....	23.1	13.4	0.76	0.81	1.42	98
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>	.....	—3.9	+0.1	—0.15	..	+0.29	—20
<i>Ten Years' Average</i>	.....	—5.2	—1.1	—0.05	—0.53	—0.13	—26

The statistics presented by Dr. Stott show a decline in the birth-rate, the lowest recorded since 1892, whilst the death-rate remains practically stationary. The infantile mortality continues to decrease, and the Medical Officer of Health says "this continued low rate is almost entirely the result of the greater care and attention given by the mothers to the feeding of their offspring." The birth-rates in the subdivisions were as follows:—Arkholme 21.4, Caton 15.6, Tunstall 17.2, and Wray 18.7; and the death-rates: Arkholme 11.3, Caton 11.6, Tunstall 12.9, and Wray 13.0.

Infectious Diseases :—Cases notified : diphtheria 18 (1 death), scarlet fever 11 (1 death), enteric fever 5 (1 death), erysipelas 2, measles—notifiable in the district—4. Non-notifiable diseases : diarrhoea (including 1 death under one year from “enteritis”) 2 deaths. Diphtheria was prevalent at the beginning of the year, most of the cases being of a mild type. Anti-diphtheritic serum was used in all the cases, and several bacteriological examinations made of the swabs taken from the throats of suspected persons. Closure of the school at Hornby took place on account of scarlet fever, this procedure, together with removal to hospital of infected cases, proving of great benefit in preventing the spread of the disease. Of the cases of enteric fever, one was found to be due to a defective drain which has been remedied. On account of the prevalence of whooping cough in the Caton sub-district, school closure was resorted to.

Hospital Accommodation.—A small hospital—10 beds—at Farleton, near Hornby, is available. Cases treated : scarlet fever 8. The provision of some form of ambulance for the conveyance of infected persons to the hospital is again advocated.

Disinfection.—No apparatus.

Water Supply for the villages of Caton, Halton, Wray, and Hornby described as “excellent.” The supplies to Leek and Cowan Bridge are still regarded as inadequate. At Melling the supply has been improved during the year, a pump having been put in order on Melling Moor ; other portions of the village are still inadequately supplied with wholesome water. A portion of the village of Cloughton is almost entirely dependent upon water from the stream which runs through the village. Last year, and for several years, this same stream has been used in the summer months for the washing of sheep. It necessarily caused great inconvenience to the inhabitants using the water for domestic purposes. The

Medical Officer has given orders that "on no account must it be used for such purposes again." The enlargement of the reservoir supplying Arkholme village is again recommended.

Sewerage, Scavenging, &c.—The sewage schemes in the several villages continue to give satisfactory results, with the exception of the village of Caton, where it is hoped that the scheme proposed for the bacterial treatment of the sewage will soon be an accomplished fact. "No change has taken place during the past year in connection with the scavenging and refuse removal of the district. In the villages of Halton, Wray, and Over Kellett, a voluntary system of scavenging exists which has worked satisfactorily"; at Caton, the system is said to be compulsory.

Sanitary Inspection.—Slaughter-houses (5) are said to be in a satisfactory condition, and to comply with the bye-laws. Regulations with regard to dairies and cowsheds have not been adopted. Factories and workshops, frequently visited, were found satisfactory. The Inspector served 23 notices for nuisance abatement.

Preston.—(Area in acres, 52,929; Census Population, excluding Institutions, 15,997).—*Medical Officer of Health*, CHARLES J. TRIMBLE, L.R.C.P.E., D.P.H.; *Salary*, £75.

Vital Statistics.

PER 1,000 OF POPULATION.							Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.		
1906	25·6	14·5	1·25	0·31	2·50		131
1905	26·3	14·1	0·75	0·87	1·31		87
Mean of 10 years							
1896-1905	25·8	14·9	1·06	0·74	2·58		124
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>	—0·7	+0·4	+0·50	—0·56	+1·19		+44
<i>Ten Years' Average</i>	—0·2	—0·4	+0·19	—0·43	—0·08		+7

A fractional decrease in the birth-rate as compared with

last year, is accompanied by a slight rise in the death-rate. The zymotic and infant rates are not so favourable as 1905, and are both in excess of the mean of the preceding decade. Reference is made to the usual causes of infantile deaths, viz., faulty environment, unsuitable and bad food administered any way and anyhow, and at any time, together with a total want of "mothering." The township birth and death rates were as follows, the birth-rate being given first :—Farington 23·94, 16·96 ; Longton 29·89, 12·89 ; Much Hoole 17·62, 6·41 ; Little Hoole 21·95, 9·98 ; Hutton 16·74, 9·56 ; Howick 19·18, 9·90 ; Penwortham 30·52, 17·83 ; Samlesbury 19·76, 13·95 ; Cuerdale nil, 39·21 ; Lea, Ashton, Ingol and Cottam 29·41, 21·0 ; Goosnargh 27·46, 13·22 ; Broughton 17·85, 9·74 ; Barton 18·91, 23·64 ; Haighton 14·65, 3·66 ; Woodplumpton 24·83, 10·76 ; Whittingham 43·47, 14·90 ; Ribchester 21·82, 14·55 ; Dutton 13·10, 8·73 ; Hothersall 56·33, 28·16 ; Grimsargh 24·28, 19·86 ; Elston and Ribbleton 16·0, nil.

Infectious Diseases.—Cases notified : diphtheria 21 (6 deaths), scarlet fever 111 (1 death), enteric fever 12 (3 deaths), erysipelas 8, puerperal fever 1 (fatal). Non-notifiable diseases: measles 3 deaths, diarrhoea 7 deaths. As in 1905, scarlet fever was "ever present," the greater part of the district being at one time or another subjected to the inroads of this disease. Penwortham, Barton, and Much Hoole suffered most. Gross carelessness on the part of parents assisted in the dissemination of this malady. In one instance the father, a farmer, was summoned before the Council for failing to notify a case of scarlet fever in his family. The Medical Officer found the case in question freely desquamating, and as milk was kitted at the farm the offence was regarded as a very serious one. The Council severely reprimanded the father for his negligence. A school at Barton was closed in September, owing to scarlet fever being actively present. Enteric fever has been more in evidence than for some years past, and diphtheria demonstrated a prevalence from time to time

throughout the year, which caused much anxiety. Measles assumed proportions necessitating school closure in the following townships :—Grimsargh in January, Goosnargh in March, Barton in April, and again in May, Fernyhalgh in May, and Ribchester in November.

Hospital Accommodation.—The Preston, Fulwood, and Longridge hospital for ordinary infectious diseases was, at the end of the year, although finished, still unopened, and only partially furnished. Dr. Trimble says he has more than once been handicapped in dealing with primary cases of infectious outbreaks, having no hospital accommodation at his disposal, and he feels confident that had hospital isolation been available some of the epidemic eruptions in 1906 could have been aborted. For small-pox the Fylde, Preston, and Garstang hospital at Elswick is available.

Disinfection.—No apparatus. Houses fumigated numbered 193.

Water Supply.—The townships of Penwortham, Howick, Hutton, Longton, Much Hoole, Little Hoole, and Farington are supplied mainly from the Preston Corporation, and at Grimsargh, Whittingham, Broughton, Haighton, Goosnargh, Ingol, Barton, Cottam, Elston, water from the mains of the Fulwood Urban Council is available. The scheme for Farington (North Ward) was completed in March, and progress has been made in the work for supplying Samlesbury and Cuerdale. The importance of a water supply for the village of Ribchester is again urged.

Sewerage, Scavenging, &c.—Grimsargh.—The new works which consist of septic tanks, detritus chamber, and continuous bacteria filters have been put into operation and proved fairly satisfactory, but on occasions the effluent has not quite

come up to the standard demanded by the Ribble Joint Committee. To meet this requirement, improvements are contemplated. Longton and Little Hoole.—A scheme has been prepared for dealing with the sewage of these areas, but as the cost is very considerable further consideration is being given thereto. Ribchester.—The works at Ribchester—continuous precipitation and filtration or irrigation—have been supplemented by the construction of a new tank, and additional land has been levelled and laid out for irrigation, and treatment of storm water. Farington.—The treatment here consists of (a) septic tanks, sprinkler filters, and irrigation; (b) crude irrigation: on the whole, the results are satisfactory. Penwortham.—The completion of this scheme has been delayed through ground water in sewer, and arbitration *re* liability. No house connections have been made. Scavenging, where undertaken by the Parochial Committees, is, on the whole, carried out satisfactorily, but complaints are occasionally received owing to irregularity in the removal of house refuse. The unsatisfactory condition of newly made streets in the township of Penwortham is referred to.

Sanitary Inspection.—Bakehouses (9) are well conducted and clean, and slaughter-houses (9) give little cause of complaint. Dairies and cowsheds are now receiving special attention; 334 cowsheds have been inspected and 117 notices served specifying sanitary defects to be remedied. These embraced provision of increased air space, better lighting, improved water supplies, and thorough linewashing and cleansing. More attention is also being given to shops and premises where milk is sold. Dr. Trimble states that “there is a strong determination on the part of the Council to place the distribution of milk on a satisfactory basis.” Factories and workshops received 66 visits, and 20 canal boats were examined. The Inspector (Mr. Asheroft) served 50 notices which resulted in the abatement of 100 nuisances.

Sefton.—(Area in acres, 14,866 ; Estimated Population, 5,808).—*Medical Officer of Health*, J. C. BRADSHAW, L.R.C.P.E., D.P.H. ; *Salary*, £90.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	21·6	15·8	1·20	0·86	2·06	55
1905	30·8	13·6	1·26	1·02	1·81	135
Mean of 10 years						
1896-1905	26·2	13·3	1·42	1·03	2·15	127
<i>Increase or Decrease on—</i>						
<i>Previous Year</i>	—9·2	+2·2	—0·06	—0·16	+0·25	—80
<i>Ten Years' Average</i>	—4·6	+2·5	—0·22	—0·17	—0·09	—72

A remarkably low infant rate, as compared with previous years, is recorded, but the death-rate is not so favourable, inasmuch as it is the highest since 1896.

Infectious Diseases.—Cases notified : diphtheria 8 (1 death), scarlet fever 8, enteric fever 4 (2 deaths), erysipelas 3, puerperal fever 1 (fatal). Non-notifiable diseases : diarrhoea (including 2 deaths under one year from "enteritis") 4 deaths. Diphtheria was chiefly in evidence at Ince Blundell, and in consequence school closure had to be resorted to. Both enteric fever cases at Ford were probably due to a ditch, running in close proximity to the dwellings, which is "certainly contaminated with sewage from Ford Cemetery." This matter is now under consideration. The third enteric case occurred on a farm at Ince Blundell where the water supply has been condemned. In the early part of the year an outbreak of measles took place in West Derby, and rendered school closure necessary.

Hospital Accommodation.—Liverpool hospitals available. The Council's own hospital erected at Kirkby for the treat-

ment of small-pox was not required during the year. Cases treated : diphtheria 5, scarlet fever 1, enteric fever 2 (1 death).

Disinfection.—Clothing, &c., sent to Liverpool.

Water Supply obtained principally from Liverpool. A few places still have to rely upon wells, which are, however, frequently subjected to inspection and analysis. Further extensions of the Liverpool main have been made at Netherton and Sefton, while attention is being directed to the supplies at North End Farm (Ince Blundell), and Lunt.

Sewerage, Scavenging, &c.—Sewage is generally allowed to run into cesspools, except at Kirkby, where there is a septic tank. Scavenging is carried out by contract in West Derby, but elsewhere this work devolves upon the occupier.

Sanitary Inspection.—Several cottages and one slaughter-house at Thornton are in an “insanitary condition,” the drainage, &c., being at fault. Dairies, milkshops, and cowsheds “have been periodically inspected, and suggested improvements have been complied with.” Ninety-eight nuisances were remedied after the service of 24 notices.

Ulverston.—(Area in acres, 127,871 : Census Population, 17,716).—*Medical Officer of Health*, G. H. PATTERSON, M.R.C.S., D.P.H. ; *Salary*, £200.

Vital Statistics.

PER 1,000 OF POPULATION.							Rate of Deaths under year to 1,000 Births.
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.		
1906	22·0	14·0	0·33	1·07	1·91		97
1905	21·7	13·8	0·73	1·01	1·58		62
Mean of 10 years							
1896-1905	22·5	13·3	0·71	0·91	1·68		83
<i>Increase or Decrease on—</i>							
<i>Previous Year</i>	+0·3	+0·2	−0·40	+0·06	+0·33		+35
<i>Ten Years' Average</i>	−0·5	+0·7	−0·38	+0·16	+0·23		+14

There is little variation in the birth and death rates from

those recorded last year, or the mean of the 10 years. The zymotic rate is more satisfactory, but there is an upward tendency in the infantile mortality. The divisional rates were as follows :—

	Birth- rate.		Death- rate.		Zymotic rate.		Infantile Mortality.
Cartmel	26·6	..	15·8	..	0·23	..	86
Hawkshead ..	19·9	..	12·9	..	nil.	..	42
High Furness..	20·6	..	14·3	..	0·22	..	129
Low Furness..	22·6	..	13·0	..	0·75	..	13

Infectious Diseases.—Cases notified : diphtheria 14 (1 death), scarlet fever 44 (1 death), enteric fever 2, erysipelas 15 (1 death). Non-notifiable diseases : diarrhoea 4 deaths. The scarlet fever cases occurred chiefly in the Cartmel Division, and necessitated closure of Holker, Flookburgh, and Newton-in-Cartmel schools. There was a slight epidemic in Aldingham in June, on account of which the Dendron schools were closed, and in November the Skelwith schools had to be closed, but this was due chiefly to an outbreak in the neighbouring County of Westmorland. Two-thirds of the diphtheria cases occurred in the High Furness Division, the township of Kirkby-Ireleth—as in previous years—being most affected, and both the cases of enteric fever occurred in this township. No special sanitary defects likely to account for these diseases could be discovered.

Hospital Accommodation is provided jointly with the Urban Districts of Dalton-in-Furness and Ulverston, at High Carley. Cases treated : diphtheria 4, scarlet fever 16 (1 death).

Disinfection.—No apparatus. Fifty-three houses and 5 schools were disinfected.

Water Supply.—Cartmel Division.—Further connections have been made to the Council's mains in Allithwaite Lower

and Allithwaite Upper. The supply to Flookburgh is unsatisfactory, but this matter is receiving consideration. Hawkshead Division.—The efforts to provide Colton with a satisfactory supply has so far not been successful, but at Satterthwaite arrangements have been made with a local landowner which renders unnecessary a public scheme for supplying the village. High Furness Division.—The Local Government Board have sanctioned a loan for the acquisition of land for a gathering ground and general works of water supply to Coniston, and at an early date an Inquiry will be held into an application for a loan to enable a supply to be obtained from the Barrow Corporation for Kirkby-Ireleth, Beekside, and Sandside. Low Furness Division.—At Aldingham boring operations are still in progress.

Sewerage, Scavenging, &c.—Cartmel Division.—No advance has been made in regard to the small sewage works for Allithwaite Upper and Newton-in-Cartmel. For Cartmel Town an efficient system of sewerage and sewage disposal is required, but no progress in this connection can be made until the question of a general water supply is settled. Hawkshead Division.—Complaints have been made of the discharge of the effluent from the sewage tanks of Hawkshead Town into the stream which runs into Esthwaite Lake. The matter is now receiving attention. High Furness.—No references. Low Furness.—The expediency of completing the sewerage scheme for Aldingham is down for consideration during the coming year. At Egton-with-Newland sewer extensions have taken place. Scavenging.—The Council have made arrangements for the removal of house refuse in many of the villages. In some districts this work is performed satisfactorily, but not in all.

Sanitary Inspection.—Dairies and cowsheds are kept “under fair supervision.” The condition of many of the cowsheds is anything but satisfactory as regards drainage,

lighting, air space and ventilation. Two hundred and thirty-eight visits of inspection were paid to factories and workshops. Three privies were abolished and water closets substituted. The Inspectors (Messrs. Brocklesby, Hudson, Ellwood and Taylor) report on the sanitary work carried out ; 109 notices were issued for sanitary amendments and 66 nuisances were abated without notice.

Warrington.—(Area in acres, 19,360 ; Estimated Population excluding County Asylum, 12,247).—*Medical Officer of Health*, R. SEPTON, L.R.C.P.E. ; *Salary*, £150.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	24.0	12.5	0.89	0.32	2.20	135
1905	26.1	12.5	2.17	0.58	1.41	105
Mean of 10 years						
1896-1905	26.5	13.0	1.74	0.68	2.02	121
<i>Increase or Decrease</i>						
<i>on—</i>						
<i>Previous Year</i>	—2.1	..	—1.28	—0.26	+0.79	+30
<i>Ten Years' Average</i>	—2.5	—0.5	—0.85	—0.36	+0.18	+14

The population of the Asylum at Winwick (2,470) and the deaths occurring there (202) are excluded from the above statistics. The birth-rate is the lowest ever recorded, but the infant rate is higher than usual. The rates in the three sub-divisions are as follows :—

	Birth-rate.	Death-rate.	Zymotic rate	Infantile Mortality.
Sankey	27.2	..	11.5	..
Winwick	23.4	..	8.8	..
Rixton	18.7	..	10.2	..

Infectious Diseases.—Cases notified : diphtheria 3, scarlet fever 14, enteric fever 3, erysipelas 6. Non-notifiable diseases : whooping cough 1 death, diarrhoea 10 deaths. Scarlet fever, of a very mild character, appeared sporadically in nearly every part of the district. Measles became prevalent in May at Winwick and, complicated with whooping cough, spread rapidly through the village. It next appeared at Orford, where it attacked “nearly the whole township.” The schools at both villages were closed for 14 days to stem the outbreaks.

Hospital Accommodation.—The infectious diseases hospital of the Warrington Corporation available, but only one case of scarlet fever was removed.

Disinfection.—Dry heat apparatus at hospital provided.

Water Supply.—“A good and plentiful supply of pure water is extended to nearly every part of the district from the Warrington Corporation waterworks.” A few isolated places rely upon wells

Sewerage, Scavenging, &c.—Sewage is treated at the Burtonwood works : in country places it drains into cesspools and ditches. Scavenging is said to be satisfactorily performed by contract.

Sanitary Inspection.—Five houses have been condemned as unfit for habitation, 2 of which were demolished and 3 repaired. Factories and workshops received 77 inspections, and like the bakehouses, slaughter-houses, dairies, &c., were found in a satisfactory condition. Details of the work of the Inspector (Mr. Kerfoot) are given, which include inspections of canal boats 35, privies converted to pail closets 4.

West Lancashire.—(Area in acres, 62,007; Estimated Population, 20,657).—*Medical Officer of Health*, G. E. SCHOLEFIELD, M.D., D.P.H.; *Salary*, £450.

Vital Statistics.

PER 1,000 OF POPULATION.						
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.
1906	23·9	13·6	1·16	0·82	1·59	92
1905	24·0	11·9	0·63	1·07	1·65	103
Mean of 10 years						
1896-1905	24·1	13·4	0·98	0·93	2·14	120

Increase or Decrease

on—

<i>Previous Year</i>	—0·1	+1·7	+0·53	—0·25	—0·06	—11
<i>Ten Years' Average</i>	—0·2	+0·2	+0·18	—0·11	—0·55	—28

The birth-rate is almost identical with last year's rate, and the average of the preceding decade. The death-rate is in excess of the 1905 figure, but approximates closely to the ten years' average. The infantile mortality is the lowest on record for the district. The township rates are as follow :—

	Birth-rate.		Death-rate.		Zymotic rate.		Infantile Mortality.
Altear	14·44	..	13·31	..	nil.	..	125
Aughton	19·60	..	12·63	..	1·07	..	123
Bickerstaffe....	27·20	..	12·66	..	0·93	..	86
Bispham	23·52	..	14·70	..	nil.	..	125
Downholland ..	16·85	..	12·50	..	nil.	..	166
Halsall	25·55	..	14·81	..	2·22	..	114
Hesketh	30·69	..	13·86	..	nil.	..	32
Lydiate	30·40	..	16·25	..	3·82	..	93
Maghull	15·10	..	14·46	..	nil.	..	125
Melling.....	29·26	..	19·17	..	3·02	..	137
North Meols ..	26·68	..	9·94	..	2·61	..	19
Rufford	23·96	..	19·94	..	1·33	..	111
Scarisbrick	18·91	..	11·86	..	nil.	..	67
Simonswood ..	13·88	..	13·88	..	nil.	..	nil.
Tarleton	29·84	..	13·84	..	nil.	..	120

Infectious Diseases.—Cases notified : diphtheria 7 (1 death), scarlet fever 39 (3 deaths), enteric fever 22 (3 deaths), erysipelas 9, puerperal fever 1 (fatal). Non-notifiable diseases : measles 3 deaths, whooping cough 3 deaths, diarrhœa 11 deaths. In addition to the above notifications, 145 cases of measles, 3 of whooping cough, and 11 of diarrhœa were reported by school teachers, parents, and others. Insanitary surroundings were associated with several of the diphtheria and enteric fever cases. Scarlet fever had a much reduced prevalence, and at no time was there anything approaching an epidemic. Three cases were discovered in the “peeling” stage. Eighty-seven per cent. of the scarlet fever cases received hospital isolation. Measles affected mainly the townships of North Meols and Searisbrick, and in both districts school closure was resorted to.

Hospital Accommodation. — Holly House, Aughton, formerly a country residence, was converted in 1897 into an isolation hospital, and in 1902 a new pavilion was provided. The present accommodation is 26 beds. Cases treated : diphtheria 3, scarlet fever 34 (1 death), enteric fever 12 (2 deaths). An arrangement is in existence by which cases arising in the northern townships can be removed to the Southport Corporation hospital, but occasion did not arise for exercising the privilege.

Disinfection.—A Thresh steam apparatus provided at the hospital. This was used 75 times, and 4,495 articles of bedding, clothing, &c., were disinfected. Rooms fumigated or sprayed numbered 312.

Water Supply.—On the whole, the district is well provided with water of good quality. A large portion of the district is supplied from two wells in Aughton, belonging to the Southport Waterworks Company. This water is hard, but otherwise of good quality, and the quantity is unlimited. Other

supplies are obtained from the Preston Rural District Council and from wells. Mains were extended in Aughton and Bickerstaffe. Of 55 samples of well water examined 4 were bad, and 5 contained too much organic matter.

Sewerage, Scavenging, &c.—The sewage from the southern area is conveyed to outfall works on the south-west of the township, and receives treatment in four tanks, and then flows on to land for filtration. The sewage from the northern area is by agreement with the Ormskirk Urban District Council discharged into the main sewer of that district, and carried to the outfall works in Scarisbrick. A small area in the township of Bickerstaffe, which is in close proximity to Ormskirk, is also connected to the Ormskirk sewer. In the greater part of the district the cesspool system, with its attendant disadvantages, is the only means of dealing with the sewage. Many of these cesspools become “a nuisance and a source of danger to health.” Scavenging in Aughton is performed by contract, and it is hoped before long it will be possible to have the remaining portion of the rural district—where the work is at present left to householders—similarly dealt with.

Sanitary Inspection.—A further improvement in the house accommodation is reported, but there are still in existence in some parts of the district, a number of old low, thatched cottages. One house in North Meols, in such a state as to be unfit for human habitation, was demolished. Bakehouses, lodging-houses, slaughter-houses, and dairies and cowsheds, on the whole, were in a satisfactory condition when visited. Twenty-one defects were discovered as the result of 136 inspections of factories and workshops. No infringements of the Act were noted on the 44 canal boats examined. The Inspector (Mr. Peach) gives full details of the sanitary work carried out in each township. Notices served numbered 188, nuisances remedied 323, smoke observations 10, &c.

Whiston.—(Area in acres, 31,281 ; Estimated Population, excluding Institutions, 20,319).—*Medical Officer of Health*, THOS. U. MERCER, M.B., D.P.H. ; *Salary*, £150.

Vital Statistics.

		PER 1,000 OF POPULATION.					Rate of Deaths under 1 year to 1,000 Births.
		Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	
1906	.....	25·0	12·2	1·96	0·88	2·60	108
1905	.....	24·1	11·6	0·79	0·84	1·24	94
Mean of 10 years							
1896-1905	.....	26·2	12·3	1·50	0·69	2·17	115
<i>Increase or Decrease</i>							
<i>on—</i>							
<i>Previous Year</i>		+0·9	+0·6	+1·17	+0·04	+1·36	+14
<i>Ten Years' Average</i>		—1·2	—0·1	+0·46	+0·19	+0·43	—7

A slight rise in the birth-rate, as compared with last year, is accompanied by increases in all the mortality averages. Fourteen of the deaths of infants were attributed to diarrhoeal diseases, almost all due to improper feeding, and to the use of the old-fashioned feeding bottle with a long india-rubber tube, which it is impossible to keep clean. As a means of remedying this state of affairs, Dr. Mereer suggests the distribution of pamphlets, or the placarding of instructions as to the feeding and care of infants.

Infectious Diseases.—Cases notified : diphtheria 41 (7 deaths), scarlet fever 143 (6 deaths), enteric fever 6 (1 death), erysipelas 9 (1 death), puerperal fever 1 (fatal). Non-notifiable diseases : whooping cough 8 deaths, diarrhoea (including 3 deaths under one year from “ enteritis ”) 18 deaths. The most marked feature during the year has been the large number of infectious diseases notified—200 as compared with 80 in 1905—the increase being almost entirely due to scarlet fever. A considerable number of cases occurred in Halebank and Hale in the first half of the year. Several children were

found attending school while suffering from the disease, and it was deemed advisable to adopt closure. Diphtheria has also been more prevalent than usual, although not epidemic, the cases being spread over eight townships. The greatest number—10—occurred in Knowsley, 4 being members of one family, and upon enquiry, a ditch containing sewage was found in close proximity to the house. Dr. Mercer says, “in this case also, as in almost every case where diphtheria occurred, foul privies existed.....the privies are often badly constructed, being too deep, uncovered, or the walls quite pervious so that filth is constantly oozing out and saturating the ground. The consequence is that the inhabitants are continually breathing a foul atmosphere, which, in very many cases, produces a relaxed condition of the throat, in which the diphtheria germ finds a happy hunting ground.” Anti-toxin is supplied to medical practitioners free of charge. The notification of phthisis instead of erysipelas is recommended by the Medical Officer of Health.

Hospital Accommodation provided both for small-pox and ordinary infectious diseases. Cases treated: diphtheria 16 (2 deaths), scarlet fever 119 (5 deaths), enteric fever 3, puerperal fever (removed to the Union Infirmary) 1. The provision of an isolation ward at the sanatorium is said to be required.

Disinfection.—Washington Lyon’s steam apparatus available. Houses fumigated numbered 145, schools 5.

Water Supply is obtained from the Corporations of Widnes, Warrington, St. Helens, and Liverpool, and, in a few instances, from wells. The question of the water supply to Bold is still under consideration.

Sewerage, Scavenging, &c.—At Rainhill, sewage is treated by irrigation, and at Ditton, Hale, and Halewood it flows into the River Mersey. A new sewer is in course of construction at Whiston and Eccleston. Scavenging, performed by contract, is said to be satisfactory in two townships only.

Sanitary Inspection.—One house was closed as unfit for human habitation. Bakehouses were found to be clean and fairly satisfactory, but one or two, not originally intended for the purpose, were in a dilapidated condition. Slaughterhouses are described as “fair.” Dairy, &c., regulations have not yet been adopted, but this matter is at present under consideration. Visits to various schools in the district have been made—at Rainhill National school the sanitary conveniences were found to be cleaner than formerly, but no additional accommodation, as previously recommended, has been provided; at Christ Church schools, Eccleston, “the arrangements are very insanitary and quite insufficient.” Fifty-six inspections of factories and workshops revealed 4 defects, 3 of which were remedied. The Inspector served 57 notices for the abatement of 197 nuisances.

Wigan.—(Area in acres, 11,695; Estimated Population, 6,709).—*Medical Officer of Health*, J. H. WILSON, M.D.; *Salary*, £80.

Vital Statistics.

PER 1,000 OF POPULATION.							
	Birth-rate.	Death-rate.	Zymotic Death-rate.	Phthisis Death-rate.	Respiratory Death-rate.	Rate of Deaths under 1 year to 1,000 Births.	
1906	29·6	12·2	0·59	0·44	2·38	100	
1905	25·7	13·9	1·06	0·30	1·66	117	
Mean of 10 years							
1896-1905	30·4	15·8	1·63	0·87	3·33	135	

Increase or Decrease

on—

<i>Previous Year</i>	+3·9	−1·7	−0·47	+0·14	+0·72	−17	
<i>Ten Years' Average</i>	−0·8	−3·6	−1·04	−0·43	−0·95	−35	

The general death and zymotic rates are the lowest so far recorded, and the remaining mortality rates compare favourably with the average of the preceding decade. Shevington

(40·1) and Dalton (31·6) had the highest birth-rates, and Haigh (21·3) the lowest. The death and infant rates were highest in Shevington, 17·6 and 146 respectively, and Worthington 18·3 and 142.

Infectious Diseases.—Cases notified : diphtheria 3 (1 death), scarlet fever 15, enteric fever 3 (1 death), erysipelas 8 (1 death). Non-notifiable diseases : diarrhœa 2 deaths. Crooke school was closed for three weeks in the early part of the year owing to measles, and at the same period similar action had to be taken at Bispham, on account of scarlet fever.

Hospital Accommodation is provided for small-pox only—6 beds. This district is one of the constituent authorities under the Wigan and District Small-pox Hospital Order.

Disinfection.—No proper appliances. Houses disinfected with sulphur.

Water Supply.—The townships of Shevington, Haigh, Parbold, and part of Wrightington, have good and constant public supplies. Dalton and Worthington derive their supplies mostly from wells, but the lower portion of the latter district is connected to the Standish mains. The scheme for Mossy Lea and Wrightington Bar, mentioned last year, is not yet completed.

Sewerage, Scavenging, &c.—At the Haigh sewage works a triple contact bed⁴⁵² has been constructed, and house connections to the sewers made. When the Wigan (B.) main sewer is completed, the sewage from Parbold, Shevington, and Wrightington, will be treated at the Corporation's works. In other parts of the district sewage discharges into cesspools or water courses.⁴⁵³ Scavenging is efficiently carried out by contract.

Sanitary Inspection.—The bakehouses, slaughter-houses (3), dairies, &c., give satisfaction. Inspections of factories and workshops (10) and canal boats (67) revealed no serious defects. Notices served by the Inspectors (Messrs. Bimson and Clark) numbered 20, resulting in 17 nuisances being remedied. In one case it was necessary to enforce compliance by taking legal proceedings.

*EXTRACT FROM THE METEOROLOGICAL REPORT

BY THE

REV. W. SIDGREAVES, S.J., F.R.A.S.,

*Of Stonyhurst College Observatory.*SUMMARY OF OBSERVATIONS
FOR 1906.

Results of Observations taken during the Year.			Mean for the last 59 years.
Mean Reading of the Barometer	...	29·537in.	29·496in.
Highest	on April 8th	30·317in.	30·290in.
Lowest	on Feb. 10th	28·150in.	28·251in.
Range of Barometer Readings	...	2·167in.	2·039in.
Highest Reading of a Max. Therm. on Sept. 2nd	...	83·9	81·7
Lowest Reading of a Min. Therm. on Dec. 26th	...	21·3	15·7
Range of Thermometer Readings	...	62·6	66·0
Mean of all the Highest Readings	...	53·1	54·8
Mean of all the Lowest Readings	...	41·8	40·7
Mean Daily Range	...	11·3	14·1
Deduced Yearly Mean (from Mean of Max. and Min.)	...	47·4	46·9
Mean Temperature from Dry Bulb	...	47·3	46·9
Adopted Mean Temperature	...	47·4	46·9
Mean Temperature of Evaporation	...	44·8	44·5
Mean Temperature of Dew Point	...	42·1	42·1
Mean elastic force of Vapour	...	0·278in.	0·273in.
Mean weight of Vapour in a cubic foot of air	...	3·2gr.	3·3gr.
Mean additional weight required for saturation	...	0·8gr.	0·7gr.
Mean degree of Humidity (saturation 100)	82		83
Mean weight of a cubic foot of air	...	539·9gr.	539·2gr.
Total fall of rain in the year	...	49·667in.	46·847gr.
Number of Days per month on which rain fell	...	17·3	18·4

The Maximum monthly mean height of the Barometer
was in February, 1891, and was ... 29·997in.

The Minimum " " in December, 1868, and was 28·984in.

The Maximum yearly mean height of the Barometer
was in 1896, and was ... 29·584in.

The Minimum " " in 1886, and was ... 29·389in.

* Introduced by kind permission.

The greatest monthly range of the Barometer was in January, 1881, and was	... ..	2.409in.
The least " " in July, 1852, and was...	... ..	0.505in.
The highest reading of the Barometer during 59 years was on January 9th, 1896, and was	... ..	30.597in.
The lowest " " on Dec. 8th, 1886, and was	... ..	27.350in.
Extreme range ... ..	... ..	3.247in.
The highest temperature was on July 20th, 1901, and was	... ..	89.0
The lowest " " January 15th, 1881	... ..	4.6
The highest adopted mean temperature of a month, July, 1901, and was...	... ..	63.2
The lowest " " " February, 1855	... ..	28.6
The highest adopted mean temperature of a year, 1868	... ..	49.1
The lowest " " " " 1879	... ..	44.1
The greatest monthly mean weight of vapour in a cubic foot of air, July, 1852	... ..	5.1gr.
The least " " February, 1855 and 1895	... ..	1.4gr.
The greatest fall of rain in a month was in October, 1870, and was	... ..	13.437in.
The least " " " May, 1859...	... ..	0.249in.
The greatest number of days on which rain fell in one month, Jan., 1872, Oct., 1873, Dec., 1868	... ..	31
The least " " " March, 1852...	... ..	3
The greatest fall of rain in one year, in 1866	... ..	62.183in.
The least " " " 1887	... ..	31.250in.
The greatest number of days in one year on which rain fell	... ..	1872 ... 319
The least " " " 1855	... ..	148

SUMMARY OF WIND.

No. of days in the year on which the prevailing wind was	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
	30	44	26	7	35	50	145	28
Mean velocity in miles per hour ...	8.7	5.9	7.3	7.2	10.0	10.6	11.2	10.3
Total No. of miles for each direction...	6285	6253	4577	1206	8374	12737	39260	6943

The total No. of miles registered during the year was 85,635.

The max. Velocity of the wind was 43 miles per hour, on Feb. 2nd, at noon, and Dec. 4th, at 11 p.m. Dir. W.

Mean amount of Cloud (an overcast sky being indicated by 10.0) 7.5.

MONTHLY TABLES FOR EACH HOUR OF RECORDED SUNSHINE.

Local apparent time.	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9
January ...	0	0	0	0	0.5	2.6	3.5	4.7	4.6	3.4	2.8	0.8	0	0	0	0	0
February...	0	0	0	0.6	3.4	8.7	11.0	11.5	10.3	10.1	12.8	6.2	0.2	0	0	0	0
March ...	0	0	1.0	6.2	11.3	14.3	16.0	14.3	16.9	15.8	15.9	14.0	10.6	2.8	0.6	0	0
April ...	0	0.8	9.3	15.0	17.5	19.3	19.0	19.2	19.5	20.7	18.7	16.4	14.8	9.8	1.8	0	0
May ...	0	1.7	4.3	4.4	5.3	6.7	6.1	5.7	6.9	6.3	6.4	6.9	7.4	6.8	4.6	0.2	0
June ...	1.1	7.2	11.4	12.5	12.4	12.5	15.6	16.3	15.8	15.9	16.2	15.9	13.6	16.7	12.5	4.8	0
July ...	0.2	5.6	9.6	12.5	13.5	14.3	15.5	16.0	15.2	16.4	17.8	17.7	17.5	10.6	9.4	4.5	0
August ...	0	0.7	6.8	10.7	12.9	16.7	14.2	15.2	16.8	15.5	16.8	16.5	15.6	12.8	6.8	1.2	0
September	0	0	4.5	11.4	16.3	21.1	22.1	21.5	21.4	17.2	14.5	10.4	10.3	4.6	0.3	0	0
October ...	0	0	0.2	3.4	7.5	7.7	8.0	6.7	10.1	6.1	4.9	4.4	1.1	0	0	0	0
November	0	0	0	0	0.3	2.5	3.2	4.4	4.7	4.1	2.6	2.2	0	0	0	0	0
December	0	0	0	0	1.3	4.4	5.9	7.6	7.6	5.8	4.0	0.7	0.2	0	0	0	0
Total	1.3	16.0	47.1	76.7	102.2	130.8	140.1	143.1	149.8	137.3	133.4	112.1	191.3	64.1	36.0	10.7	0

TOTAL AMOUNT OF SUNSHINE RECORDED ON EACH DAY.

1906.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
January	...	0	0	0	0	0	0.1	0	0	0.9	0	0	2.7	0.4	0.4	0.2	1.2
February	...	0	1.7	6.0	5.7	6.7	0	1.8	7.5	0	2.0	4.3	0	1.1	3.2	1.3	1.9
March	...	0	4.0	4.7	5.5	1.1	0	0.8	3.8	0.3	0	8.0	7.1	8.3	0	0	7.1
April	...	0	9.7	10.7	9.9	0.4	9.2	9.8	1.1	11.8	10.8	5.7	6.3	12.5	9.0	6.1	4.2
May	...	11.2	0.3	2.6	5.0	2.1	0.1	0.8	0	3.7	4.4	0.4	7.3	3.2	5.8	1.8	1.4
June	...	4.3	9.5	8.0	9.7	10.2	10.4	3.8	14.7	12.3	4.1	11.1	0	2.1	7.7	5.0	1.3
July	...	10.4	0.4	9.3	10.6	7.7	3.7	9.3	11.4	8.8	1.7	10.8	8.7	7.3	7.5	0	1.3
August	...	4.3	1.1	9.7	5.2	8.3	9.3	8.7	1.7	8.2	1.3	3.0	0	5.1	7.3	3.3	0.8
September	...	11.8	11.7	2.7	8.8	4.4	7.5	0.3	6.6	9.5	10.4	8.3	0	1.2	7.3	4.2	5.6
October	...	0.2	0	5.8	0	0.1	1.0	0	5.2	0	1.4	0.3	1.4	6.2	0.5	0.4	3.3
November	...	0	0	1.3	0	1.3	3.9	1.1	0	2.3	1.8	0	1.3	0	0.1	0	0.1
December	...	5.7	0	3.3	1.3	0	0.5	0	0	5.9	4.7	0	1.5	1.9	0	0	0

TOTAL AMOUNT OF SUNSHINE RECORDED ON EACH DAY
(Continued.)

1906.	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Monthly Total.	Per centage each month
January	...	0	5.3	0	0.6	6.2	0	0	0.3	0	0	3.0	1.2	0.2	22.9	9.2
February	...	5.4	0	5.2	5.7	1.8	0	4.8	1.8	0	0	0	0	0	74.8	27.5
March	...	8.8	6.2	3.8	6.8	7.8	8.1	4.4	9.7	5.9	3.5	9.2	1.1	1.6	139.7	38.2
April	...	12.3	8.2	2.8	0.1	9.2	8.2	5.5	9.0	0.7	4.2	2.7	4.0	0	201.8	48.2
May	...	6.1	0	1.3	3.3	0.4	0	4.8	2.7	0	0.7	0.5	2.7	5.0	79.7	16.2
June	...	7.4	13.8	5.3	0.8	2.7	5.6	4.8	0.3	0.8	9.8	6.1	12.2	0	200.4	39.4
July	...	2.8	14.2	11.8	2.8	1.1	0.3	12.2	8.5	12.5	1.5	3.7	5.8	7.2	196.3	38.6
August	...	1.6	9.0	0	0	10.2	6.8	3.8	8.1	0	10.0	11.3	11.8	11.8	179.2	39.2
September	...	9.4	2.5	2.6	6.9	3.3	1.5	5.6	5.5	3.1	9.0	7.6	3.9	0	175.6	46.3
October	...	0	1.8	6.2	0.3	0.3	3.8	4.2	8.2	0.2	3.3	0.7	0	0	60.1	18.4
November	...	0	1.2	1.9	0	0.2	2.1	3.8	0.1	0	0.6	0.3	0.6	0	24.0	9.4
December	...	0	0	0	0	0	0	6.0	2.3	3.4	0	1.0	0	0	37.5	16.2

VITAL STATISTICS.

TABLE I.—DEATHS registered during the year 1906 in the **URBAN DISTRICTS** of the Administrative County of Lancaster, classified according to Ages and Localities, and showing also the Area and Population of such Localities, and the Birth-rate and Death-rate during the year.

NOTES :—(a) The Area and "Census" Population of each District are taken from the Census Return.

(b) The Deaths of Residents registered in Public Institutions beyond the limits of the Districts are included in these Tables, and the Deaths of Non-Residents registered in Public Institutions in the Districts are excluded.

URBAN DISTRICTS.	Area in Statute Acres.	Population at all ages.		Annual Rates per 1000 of estimated population.						Rate of Infant Mortality measured by the proportion of deaths under 1 yr to 1000 births		Mortality from all causes at subjoined ages.					
		Census. 1901	Estimate to middle of 1906.	Registered Births.	Birth- rate.	Death- rate.	Death- rate from the seven principal Zymotic Diseases.	Phthisis Death- rate.	Respi- ratory Death- rate.	At all Ages	Under 1 year.	1 and 2 under 5	2 and 15 under 20	15 and 25 under 35	25 and 65 under 65	65 and upwards.	
ABRAM	1984	6306	7169	238	33.1	12.5	2.78	0.13	2.23	90	31	16	7	3	23	10	
ACCINGTON (Borough) ..	3427	43122	15000	976	21.6	13.3	1.73	0.91	1.84	602	129	47	33	21	229	143	
ADLINGTON	1062	4523	4762	120	25.1	13.8	2.30	0.83	2.72	66	17	9	1	3	18	18	
ALLERTON	1589	1101	1101	27	24.5	5.4	0.90	Nil.	1.81	37	1	1	..	..	2	2
ASHTON-IN-MAKERFIELD ..	6251	18687	20866	664	31.8	14.8	3.30	0.91	2.73	159	106	50	14	9	80	51	
ASHTON-UNDER-LYNE (Borough)	1316	43890	45161	1200	26.5	17.4	2.05	1.48	3.63	788	183	61	24	29	322	169	
ASPULL	1966	8388	8388	292	31.8	15.8	2.26	0.35	4.53	113	33	28	9	15	41	7	
ATHERTON	2265	16211	18100	567	30.8	14.6	3.15	0.97	2.28	269	94	40	12	6	78	39	
ACDENSHAW	1241	7216	7605	181	24.1	14.2	1.70	1.31	2.89	111	21	9	6	2	46	24	
BACUP (Borough)	6120	22505	24100	524	21.1	15.2	1.63	0.65	3.40	120	63	44	22	13	144	85	
BARROWFORD	1385	4959	5500	121	22.0	14.4	1.27	0.90	3.09	78	22	5	2	4	31	14	

TABLE I.—Continued.

URBAN DISTRICTS.	Area in Statute Acres.	Population at all ages.		Registered Births.	Annual Rates per 1000 of estimated population.				Rate of Infant Mortality measured by the proportion of deaths under 1 yr. to 1000 births.	Mortality from all causes at subjoined ages.							
		Census, 1901.	Estimate to middle of 1906.		Birth-rate.	Death-rate.	Death-rate from the seven principal zymotic diseases.	Phthisis death-rate.		Respiratory death-rate.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	
BILLINGE	4596	4232	4500	125	27·7	11·0	2·22	0·88	2·88	104	63	13	4	6	7	17	16
BIRKDALE	4316	15511	19000	365	19·2	12·2	1·05	1·15	1·68	139	233	51	26	11	5	74	66
BISPHAM-WITH-NORRECK	1346	985	1602	28	17·4	19·3	0·62	0·62	1·21	107	31	3	1	..	1	16	10
BLACKROD	2392	3875	4000	122	30·5	13·0	0·75	0·75	4·00	139	53	17	7	2	1	14	11
BRIERFIELD	807	7288	7800	170	21·7	13·0	2·56	0·64	2·94	164	102	28	24	5	2	28	15
CARNFORTH	1505	3010	3200	67	20·9	10·6	0·31	1·25	0·31	74	34	5	3	1	1	12	12
CHADDERTON.....	3082	24892	26600	741	27·9	18·1	2·10	1·72	2·81	116	482	87	63	20	23	184	105
CHILDWALL	830	219	222	2	9·0	9·0	Nil.	Nil.	4·50	Nil.	2	..	..	..	..	1	1
CHORLEY (Borough)	3614	26852	29500	791	26·8	15·6	1·79	0·81	3·11	140	461	111	55	10	15	161	109
CHURCH	529	6463	6800	148	21·7	16·3	1·32	0·88	1·76	128	111	19	12	10	3	42	25
CLAYTON-LE-MOORS	1059	8153	8700	251	28·8	14·2	1·83	1·03	1·72	139	124	35	19	5	4	35	26
CLITHEROE (Borough) ..	2385	11414	11600	258	22·2	15·2	1·29	0·94	2·15	131	177	34	6	7	4	61	65
COLNE (Borough)	5063	23000	24500	593	24·2	14·9	3·75	0·93	2·61	175	367	104	44	18	14	116	71
CROMPTON.....	2865	13427	13500	311	23·0	16·0	2·00	0·37	3·40	144	217	45	27	12	13	78	42
CROSTON	2347	2102	2130	49	23·0	10·7	0·93	1·40	1·40	122	23	6	1	..	..	8	8
DALTON-IN-FURNESS	7990	13020	13020	308	23·6	15·5	2·45	1·15	2·38	146	202	45	22	11	6	50	68

TABLE I.—Continued.

URBAN DISTRICTS.	Area in Square Yards.	Population at all ages.		Annual Rates per 1000 of estimated population					Rate of Infant Mortality measured by the proportion of deaths under 1 yr. to 1000 births.	Mortality from all causes at subjoined ages.						
		Census, 1901.	Estimate to middle of 1906.	Registered Births.	Birth- rate.	Death- rate.	Death- rate from the seven principal Zymotic diseases.	Phtisis Death- rate.		Respi- ratory Death- rate.	1 under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.
DARWEN (Borough)	5959	38212	41164	811	19.7	13.1	1.14	0.46	3.06	540	111	65	19	18	202	125
DENTON	2594	14934	15658	399	25.4	16.5	1.21	1.66	3.19	259	54	16	17	14	97	61
DROYLSDEN	1010	11087	12000	359	29.9	17.8	2.91	1.66	2.08	214	52	32	15	13	71	31
ECCLES (Borough)	2057	34369	38500	1010	26.2	13.8	1.74	1.11	2.33	531	141	48	20	23	174	128
FALSWORTH	1072	14152	14900	413	27.7	16.9	2.55	1.61	2.55	253	62	41	9	5	85	51
FARNWORTH	1504	25925	26000	672	25.8	17.1	3.07	1.11	2.42	445	127	48	11	26	163	67
FLEETWOOD	2510	12082	14150	435	30.7	15.9	3.46	0.49	2.04	226	61	36	7	7	78	37
FORMBY	5127	5642	6325	125	19.7	10.5	0.91	0.79	1.42	67	11	6	2	5	22	21
FULWOOD	2116	2870	*3807	69	18.1	9.4	0.52	0.26	1.83	36	2	4	2	2	12	14
GOLBORNE	1679	6789	7000	214	30.5	16.4	4.42	0.85	2.42	115	35	22	8	4	20	26
GORTON	1117	26564	33000	1102	33.8	17.4	3.72	1.33	3.03	577	182	99	20	22	184	70
GRANGE-OVER-SANDS	1510	1993	1993	24	12.0	13.5	Nil.	1.50	2.00	27	1	..	2	..	8	16
GREAT CROSBY	1907	7555	11212	226	20.1	8.2	0.53	0.71	1.33	92	17	10	3	5	23	31
GREAT HARWOOD	2868	12015	13500	310	22.9	12.2	1.33	0.29	1.70	165	36	20	13	11	57	28
HASLINGDEN (Borough) . . .	8196	18543	19116	380	19.8	16.5	1.56	1.36	3.60	317	51	22	9	19	135	81

* Excluding a Population of 2,730 in Public Institutions.

TABLE I.—Continued.

URBAN DISTRICTS.	Area in Statute Acres.	Population at all ages.		Annual Rates per 1000 of estimated population.					Rate of Infant Mortality measured by the proportion of deaths under 1 yr. to 1000 births.	Mortality from all causes at subjoined ages.					
		Census, 1901.	Estimate to middle of 1906.	Registered Births.	Birth-rate.	Death-rate.	Death-rate from the seven principal Zymotic Diseases.	Pneumonia death-rate.		Under 1 year.	1 and 5 under 5.	5 and 15 under 15.	15 and under 25.	25 and under 65.	65 and upwards.
HAYDOCK	2411	8575	9850	366	37.1	15.5	3.24	0.40	153	56	20	7	9	35	26
HEATON NORRIS	1619	9392	10844	171	15.7	9.8	1.10	0.36	122	21	5	2	5	43	31
HEYSHAM	1835	3381	3977	64	16.0	12.0	0.25	0.25	109	7	2	2	1	20	16
HEYWOOD (Borough)	3660	25458	26599	587	22.8	18.0	2.74	1.01	173	102	47	21	10	186	114
HINDLEY	2612	23504	25625	820	32.0	16.4	3.82	0.66	159	131	84	20	12	111	63
HORWICH	3257	15084	15976	421	26.3	12.6	2.44	0.68	114	48	26	12	6	76	34
HURST	638	7145	7300	202	27.6	17.3	1.50	0.68	193	39	8	2	6	45	27
HUYTON-WITH-ROBY	3053	4661	4661	113	24.2	13.3	0.64	0.85	123	14	4	5	2	26	11
INCE-IN-MAKERFIELD	2320	21262	22860	804	35.1	19.9	4.63	0.74	181	146	83	21	21	133	52
IRLAY	4620	4335	4800	159	33.1	15.2	2.08	0.83	94	73	6	7	3	28	14
KEARSLEY	1005	9218	9600	259	26.9	15.8	2.70	0.93	166	43	16	6	5	47	35
KIRKHAM	857	3693	3764	108	28.6	16.2	2.39	0.53	120	13	5	3	3	17	20
LANCASTER (Borough) ..	3506	40329	*42837	1061	24.7	13.2	1.49	1.02	138	147	57	17	27	185	136
LATHAM AND BURSLOUGH ..	13660	7113	7632	206	26.9	14.9	1.57	1.31	111	23	9	6	8	40	28
LEES	203	3621	3798	100	26.5	15.2	1.84	0.26	150	15	8	..	5	20	10

* Excluding a Population of 2,500 in Public Institutions—persons not belonging to the Borough.

TABLE I.—Continued.

URBAN DISTRICTS.	Area in Statute Acres.	Population at all ages.		Annual Rates per 1000 of estimated population.						Rate of Infant Mortality measured by the proportion of deaths under 1 yr. to 1000 births.		Mortality from all causes at subjoined ages.					
		Census, 1901.	Estimate to middle of 1906.	Registered Births.	Birth- rate.	Death- rate.	Death- rate from the seven principal zymotic Diseases.	Phthisis Death- rate.	Respi- ratory Death- rate.	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	
LEIGH (Borough)	6358	40001	44800	1352	30.1	16.5	3.45	0.93	2.85	741	235	115	45	35	205	106	
LEVENSHULME	606	11185	17200	469	27.2	10.6	1.33	0.46	1.39	184	42	27	4	6	59	46	
LEYLAND	3725	6865	7200	176	24.4	14.0	1.80	0.97	1.94	101	20	11	4	4	26	36	
LITHERLAND	857	10592	14934	558	37.3	15.5	3.21	0.66	2.07	232	62	44	13	15	72	26	
LITTLEBOROUGH	7853	11166	11455	236	20.6	13.9	1.01	0.87	1.30	160	31	15	4	8	64	35	
LITTLE CROSBY	1903	563	600	11	48.3	8.3	Nil.	1.66	1.66	5	1	..	1	..	3	..	
LITTLE HULTON	1699	7294	7294	194	26.5	14.8	2.19	1.23	2.46	108	30	8	3	8	40	19	
LITTLE LEVER.....	808	5119	5400	148	27.4	17.5	3.14	0.37	3.88	95	32	3	3	7	29	21	
LITTLE WOOLTON	1389	1091	1091	18	16.4	8.2	Nil.	0.91	0.91	9	2	..	..	1	4	2
LONGRIDGE	3285	4304	4304	123	28.5	17.8	2.78	1.39	2.55	77	27	11	2	3	17	17	
LYTHAM	2461	7185	9250	147	15.8	11.7	0.51	0.32	0.97	109	14	9	1	8	37	40	
MIDDLETON (Borough) ..	4775	25178	27000	565	20.9	16.0	1.70	1.55	2.59	432	77	29	17	23	167	119	
MILNROW	5198	8241	8580	167	19.4	13.9	0.58	0.93	1.74	120	19	7	4	8	42	40	
MORECAMBE (Borough) ..	1801	11798	13800	207	15.0	14.7	0.94	1.37	1.30	203	26	15	5	15	86	56	
MOSSLEY (Borough)	3622	13452	13661	259	18.9	14.7	0.87	0.87	3.29	202	31	9	9	8	78	67	
MUCH WOOLTON	792	4731	4731	111	23.4	15.4	2.53	1.47	3.38	73	20	5	4	4	25	15	

TABLE I.—Continued.

URBAN DISTRICTS.	Area in Statute Acres.	Population at all ages.			Annual Rates per 1000 of estimated population.						Infant Mortality measured by the proportion of deaths under 1 yr. to 1000 births.	Mortality from all causes at subjoined ages.					
		Census, 1901	Estimate to middle of 1906.	Registered Births.	Birth- rate.	Death- rate.	Death- rate from the seven principal Zymotic Diseases.	Phthisis Death- rate.	Respi- ratory Death- rate.	1 and under 5.		5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.		
NELSON (Borough).....	3466	32816	37000	725	19.5	10.6	1.64	0.70	1.97	394	93	52	22	20	136	71	
NEWTON-IN-MAKERFIELD.	3105	16639	19153	530	27.6	13.4	1.93	1.20	2.76	258	67	47	12	15	68	49	
NORDEN	5358	3907	4000	74	18.5	12.5	0.50	0.25	1.50	50	11	..	1	3	20	15	
ORMSKIRK	574	6857	6857	183	26.6	16.7	0.72	1.16	2.04	115	28	9	4	5	42	27	
ORRELL	1617	5436	6015	160	26.6	14.4	3.15	0.33	2.32	87	26	9	4	3	27	18	
OSWALDTWISTLE	4885	14192	14700	382	25.9	16.4	3.12	0.61	2.72	180	69	38	10	11	66	48	
PADHAM	970	12205	13500	345	25.5	15.6	2.29	0.88	2.59	159	55	28	9	8	61	50	
POULTON-LE-FYLDE	915	2223	2500	46	18.1	12.8	nil.	0.80	0.80	86	4	1	..	1	13	13	
PRESALL-WITH- HACKINSALL	3232	1423	1550	47	30.3	8.3	1.29	Nil.	1.93	21	1	1	1	..	4	6	
PRESBOT	297	7855	7840	237	30.2	16.1	3.18	1.27	2.29	164	39	10	8	3	51	16	
PRESTWICH	2494	9779	*10800	260	24.0	10.0	1.20	0.09	1.75	88	23	11	6	7	30	31	
RADCLIFFE	3098	25368	25500	591	23.1	15.6	1.52	1.05	3.05	164	97	20	14	22	164	83	
RAINFORD	5577	3359	3300	97	29.3	11.5	1.51	Nil.	2.42	61	6	5	..	3	13	11	
RAMSBOTTOM.....	6424	15920	16200	285	17.5	14.2	1.85	0.67	2.28	126	36	28	3	7	82	75	
RAWTENSTALL (Borough)	9535	31053	32200	666	20.6	14.4	0.80	1.14	2.29	123	82	43	13	22	191	113	

* Excluding Population in County Asylum

TABLE I.—Continued.

URBAN DISTRICTS.	Area in Statute Acres.	Population at all ages.		Annual Rates per 1000 of estimated population.						Rate of Infant Mortality measured by the proportion of deaths under 1 yr. to 1000 births.	Mortality from all causes at subjoined ages.						
		Census, 1901.	Estimate to middle of 1906.	Registered Births.	Birth-rate.	Death-rate.	Death-rate from the seven principal Zymotic Diseases.	Phthisis Death-rate.	Respiratory Death-rate.		At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.
RISHTON	2985	7031	7400	181	24.4	10.4	1.75	0.67	2.29	116	77	21	9	3	4	31	9
ROYTON	2145	14881	15600	431	27.6	17.5	1.98	0.64	3.84	113	273	49	29	13	22	99	61
ST. ANNES-ON-THE-SEA..	3342	6838	9474	148	15.6	10.8	0.52	0.84	1.05	54	103	8	5	7	6	44	33
SKELMERSDALE.....	1942	5699	6500	224	34.4	17.6	1.69	0.15	4.60	205	115	46	11	3	12	26	17
STANDISH-WITH-LANGTREF	3266	6303	6772	225	33.2	14.0	1.77	0.44	1.62	168	95	38	8	5	2	26	16
STRETFORD	3240	30436	40000	787	19.6	11.6	1.10	0.82	1.91	122	467	96	40	19	20	175	117
SWINTON AND PENDLEBURY.....	2212	27005	29000	819	29.2	18.4	3.75	0.82	3.96	199	535	169	92	15	28	153	78
THORNTON	2996	3108	3957	117	29.5	11.6	1.51	0.25	1.51	59	46	7	7	5	2	16	9
TOTTINGTON	2543	6118	6600	115	17.4	15.1	1.36	0.60	2.57	156	100	18	6	3	4	45	24
TRAWDEN	6815	2611	2840	73	25.7	11.9	1.05	0.70	2.11	109	31	8	5	5	2	9	5
TURTON	17355	12355	12600	222	17.6	12.6	0.87	0.87	2.93	63	160	14	11	13	6	68	48
TYLDESLEY-WITH-SHARPLEY	2490	14843	16500	412	24.9	15.2	3.63	0.78	3.09	194	252	80	50	13	10	66	33
LIVERSTON	3172	19061	10064	222	22.0	14.5	1.28	0.59	2.18	112	146	25	8	5	4	63	41
UPHOLLAND	4686	4773	4773	178	37.2	17.5	2.09	1.46	3.35	185	84	33	7	5	3	20	16
URMSTON	992	6591	7750	190	24.5	14.4	1.67	0.90	2.96	163	112	31	5	3	2	34	37

TABLE I.—Continued.

URBAN DISTRICTS.	Area in Statute Acres.	Population at all ages.		Registered Births.	Annual Rates per 1000 of estimated population.						Rate of Infant Mortality measured by the proportion of deaths under 1 yr. to 1000 births.	Mortality from all causes at subjoined ages.						
		Census, 1901.	Estimate to middle of 1906.		Birth-rate.	Death-rate.	Death-rate from the seven principal Zymotic Diseases.	Phthisis death-rate.	Respiratory death-rate.	At all Ages.		Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	
WALTON-LE-DALE	4658	11271	11271	291	26·0	15·7	2·39	0·88	1·15	139	178	41	15	13	9	60	10	
WARDLE.....	3192	4427	*4100	69	16·8	14·1	0·73	0·97	2·68	130	58	9	3	2	1	21	19	
WATERLOO-WITH-SEAFORTH	952	23102	26410	669	25·3	10·9	1·89	0·56	1·59	119	288	80	34	9	10	81	71	
WESTHOUGHTON	5560	14377	15720	459	29·1	11·7	1·52	0·44	3·05	100	185	46	21	12	8	51	14	
WHITEFIELD.....	1406	6588	6830	147	21·5	18·0	1·31	1·02	1·97	183	123	27	7	3	4	48	34	
WHITWORTH	1485	9578	9666	176	18·2	15·5	0·72	0·93	1·21	130	150	23	11	5	3	68	10	
WIDNES (Borough).....	3110	28580	30604	956	31·2	18·7	3·46	0·58	3·39	195	571	187	72	24	18	195	78	
WIDNELL.....	3705	3349	3500	66	18·8	14·0	2·85	0·57	2·00	166	49	11	12	2	1	12	8	
WORSLEY	5112	12162	13174	280	21·2	11·8	2·04	0·91	2·80	150	195	42	18	7	8	67	53	

* Excluding Population of Public Institutions.

TABLE II.—Continued.

[illegible]

TABLE II.—Continued.

URBAN DISTRICTS.		Age at Death.	Mortality from subjoined causes, distinguishing Deaths of Children under five years of age.																									
			Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria & Mem. Croup.	Croup.	Fever.			Cholera.	Diarrhea.	Enteritis.	Epidemic Influenza.	Puerperal Fever.	Erysipelas.	Phthisis (Pul. Tuberculosis).	Other Tubercular Diseases.	Cancer, malignant disease.	Bronchitis, Pneumonia, and Pleurisy.	Alcoholism, (Cirrhosis of Liver.	Heart Disease.	Accidents.	Suicides.	All other Diseases.		
CHORLEY (Borough)	Under 5 upwards	..	12	1	..	5	4	1	3	26	..	1	2	1	23	6	..	32	..	52	3	3	..	75
		..	..	..	..	1	..	..	..	..	..	..	..	1	1	3	1	..	..	5	19	60	..	52	6	5	110
CHURCH	Under 5 upwards	1	4	1	2	6	..	4	..	1	..	16	1	3	..	17
		..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	3	5	11	..	16	3	2	29
CLAYTON-LE-MOORS	Under 5 upwards	..	8	..	2	1	4	9	2	..	6	10	..	1	..	1	..	26
		..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	1	..	5	3	8	..	..	35
CLITHEROE (Borough) ..	Under 5 upwards	..	1	1	3	1	1	8	10	..	1	13	7	..	14	3	18
		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	18	3	14	3	3	68
COLNE (Borough)	Under 5 upwards	..	31	6	..	2	2	1	43	1	22	4	12	23	..	31	5	38
		..	1	2	..	1	..	..	..	..	..	..	5	..	1	..	..	..	..	4	..	41	..	31	..	..	90
CROMPTON	Under 5 upwards	..	1	5	2	2	1	..	1	..	1	..	12	..	2	2	..	5	..	11	1	15	..	1	22	3	..	28
		..	..	1	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	31	1	22	5	1	57
CROSTON	Under 5 upwards	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	3	..	1	..	1	..	6	2	..	4
		..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	2	..	6	2	..	2
DALTON-IN-FURNESS	Under 5 upwards	3	1	7	17	..	1	15	5	9	..	15	..	20	..	1	2	19
		..	1	..	2	2	..	..	..	..	..	..	1	..	1	..	..	15	5	..	..	16	..	20	1	..	62
DARWEN (Borough)	Under 5 upwards	..	17	3	1	21	7	1	6	2	1	19	7	37	..	51	..	1	63	3	10	67
		..	..	..	..	1	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	75	4	63	3	10	130
DENTON	Under 5 upwards	2	..	2	2	..	12	26	1	2	10	10	..	25	5	1	..	42
		..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	40	5	25	5	1	72

TABLE II.—Continued.

URBAN DISTRICTS.	Age at Death.	Mortality from subjoined causes, distinguishing Deaths of Children under five years of age.																								
		Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria & Mem. Group.	Group.	Typhus	Fever.		Cholera.	Diarrhoea.	Enteritis.	Epidemic Influenza.	Puerperal Fever.	Erysipelas.	Phthisis (Pul. Tuberculosis).	Other Tubercular Diseases.	Cancer, malignant disease.	Bronchitis, Pneumonia, and Pleurisy.	Alcoholism, Cirrhosis of Liver.	Heart Disease.	Accidents.	Suicides.	All other Diseases.	
DROYLSDEN	Under 5..	13	4	1	2	2	..	8	3	1	7	..	5	10	..	1	1	..	33
	5 upwards	..	1	..	1	2	..	2	19	7	15	1	19	4	3	41
ECCLES (Borough).....	Under 5..	3	3	..	3	47	6	1	..	10	27	..	5	4	..	80
	5 upwards	..	2	..	2	4	..	3	1	3	1	43	4	26	63	6	40	11	1	1	135
FAILSWORTH	Under 5..	12	..	1	3	3	3	..	13	2	1	2	6	2	..	17	1	45
	5 upwards	..	2	..	3	..	..	..	3	..	1	..	2	..	..	..	18	..	11	21	4	13	6	1	65
FARNWORTH	Under 5..	..	..	7	..	..	1	..	..	..	54	1	1	..	..	..	29	4	..	24	..	1	2	..	79
	5 upwards	..	1	..	..	..	..	..	14	..	3	5	5	4	2	..	29	4	13	39	3	35	7	1	105
FLEETWOOD	Under 5..	21	..	..	3	..	..	..	3	..	18	..	..	..	..	..	..	1	..	13	..	3	1	..	37
	5 upwards	1	..	1	1	..	..	..	..	..	1	1	3	..	..	..	7	3	17	16	3	24	7	2	39
FORMBY	Under 5..	1	..	..	1	..	..	..	..	..	4	..	..	..	..	..	..	..	3	3	..	1	..	..	7
	5 upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..	6	1	12	6	..	17
FULWOOD	Under 5..	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	..	3	3	..	2	..	9
	5 upwards	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	4	1	8	..	..	..
GOLBORNE	Under 5..	1	..	2	1	..	..	..	1	..	24	..	1	..	..	..	..	3	..	8	..	..	..	1	17
	5 upwards	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	6	..	..	9	1	10	..	1	28
GORTON	Under 5..	14	1	15	4	3	..	..	..	..	75	5	..	..	..	..	..	12	..	40	..	..	3	..	109
	5 upwards	..	2	1	2	3	..	4	..	..	5	1	3	1	..	..	44	2	15	60	5	28	3	2	115
GRANGE-OVER-SANDS	Under 5..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	3	..	..	..	..	..	1
	5 upwards	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	4	..	1	..	..	12

TABLE II.—Continued.

		Mortality from subjoined causes, distinguishing Deaths of Children under five years of age.																								
URBAN DISTRICTS.	Age at Death.	Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria & Mem. Croup.	Croup.	Fever.			Cholera.	Diarrhœa.	Enteritis.	Epidemic Influenza.	Puerperal Fever.	Erysipelas.	Phthisis (Pul. Tuberculosis).	Other Tubercular Diseases.	Cancer, malignant disease.	Bronchitis, Pneumonia, and Pleurisy.	Alcoholism, Cirrhosis of Liver.	Heart Disease.	Accidents.	Suicides.	All other Diseases.	
								Typhus	Enteric	Other continued																
GREAT CROSEY	Under 5 upwards	..	..	..	1	1	..	..	..	..	..	4	..	1	..	..	8	2	6	5	..	1	1	..	..	14
GREAT HARWOOD	Under 5 upwards	..	5	2	1	1	..	..	1	..	..	5	..	1	..	1	4	3	9	8	..	3	19	7	1	30
HASLINGDEN (Borough) ..	Under 5 upwards	..	10	..	1	1	..	..	1	..	..	10	1	1	..	1	1	1	12	14	..	3	51	1	1	31
HAYDOCK	Under 5 upwards	..	..	1	3	1	..	..	3	..	..	21	..	1	..	..	4	..	6	17	..	2	14	10	..	31
HEALTON NORRIS	Under 5 upwards	..	..	..	4	..	..	..	..	..	..	7	1	..	..	1	4	2	11	5	..	1	13	1	..	6
HEYSHAM.	Under 5 upwards	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	1	..	4	2	..	..	8	6	..	7
HEYWOOD (Borough)	Under 5 upwards	..	8	6	..	2	..	..	1	..	..	40	1	6	..	1	1	4	23	35	..	3	38	1	..	49
HINDLEY	Under 5 upwards	..	34	2	2	4	..	..	5	..	..	52	4	3	..	..	16	14	9	34	..	5	5	6	..	147
HORWICH	Under 5 upwards	..	3	2	2	2	..	..	4	..	..	18	1	..	..	2	11	6	19	9	..	25	3	1	28	
HURST	Under 5 upwards	..	2	1	..	1	..	..	..	..	..	7	..	..	..	..	5	2	4	9	..	17	3	..	25	
		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	1	..	27	..	..	..	..	23	

TABLE II.—Continued.

URBAN DISTRICTS.	Age at Death.	Mortality from subjoined causes, distinguishing Deaths of Children under five years of age.																								
		Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria & Mem. Croup.	Croup.	Fever.			Cholera.	Diarrhoea.	Enteritis.	Epidemic Influenza.	Puerperal Fever.	Erysipelas.	Phtthisis (Pul. Tuberculosis).	Other Tubercular Diseases.	Cancer, malignant disease.	Bronchitis, Pneumonia, and Pleurisy.	Alcoholism, Cirrhosis of Liver.	Heart Disease.	Accidents.	Suicides.	All other Diseases.	
HUYTON-WITH-ROBY	Under 5 upwards	..	1	1	..	..	..	..	..	..	..	1	..	..	..	..	..	4	1	2	6	2	8	1	..	8
INCE-IN-MAKERFIELD	Under 5 upwards	..	20	4	5	2	..	..	13	..	..	60	3	..	..	..	1	3	17	13	49	4	12	1	..	64
IRLAM	Under 5 upwards	..	..	..	..	..	..	..	..	..	..	6	..	2	1	..	..	4	3	2	3	5	5	3	..	10
KIARSLEY	Under 5 upwards	..	2	..	3	1	..	..	2	..	1	17	1	..	..	..	..	9	2	5	7	2	9	3	..	26
KIRKHAM	Under 5 upwards	..	..	2	2	..	..	..	2	..	..	2	..	..	..	..	..	2	2	2	3	7	2	1	..	8
LANCASTER (Borough) ..	Under 5 upwards	..	1	1	4	5	3	..	1	..	..	46	1	2	1	..	3	10	7	39	18	4	2	4	..	109
LATHAM AND BURSICOTGH.	Under 5 upwards	..	..	..	1	1	1	..	3	..	..	7	1	1	..	..	..	4	2	9	7	1	12	2	2	31
LEES	Under 5 upwards	..	2	..	..	2	..	..	..	..	..	2	..	..	1	..	..	1	1	5	3	7	6	..	..	13
LEIGH (Borough)	Under 5 upwards	..	34	7	3	1	1	..	14	..	..	89	1	10	3	..	2	1	15	26	57	1	4	4	..	131
LEVENSHULME	Under 5 upwards	..	11	..	..	1	..	..	1	..	..	6	1	1	2	..	..	8	4	8	16	..	1	1	..	36
		..	1	..	..	1	..	..	1	..	..	1	1	2	..	..	..	8	4	8	8	..	12	2	1	55

TABLE II.—Continued.

URBAN DISTRICTS.		Age at Death.	Mortality from subjoined causes, distinguishing Deaths of Children under five years of age.																										
			Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria & Mem. Croup.	Croup.	Fever.			Cholera.	Diarrhoea.	Enteritis.	Epidemic Influenza.	Puerperal Fever.	Rysipelas.	Phthisis Pul. Tuberculosis.	Other Tubercular Diseases.	Cancer, malignant disease.	Bronchitis, Pneumonia, and Pleurisy.	Alcoholism, Cirrhosis of Liver.	Heart Disease.	Accidents.	Suicides.	All other Diseases.			
LEYLAND	Under 5.. 5 upwards	..	..	1	..	..	..	..	2	..	9	..	..	..	1	6	..	..	..	7	5	..	1	13	2	..	1	13
		..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	9	1	..	..	..	..	..
LITHERLAND	Under 5.. 5 upwards	..	7	4	4	1	2	1	26	1	9	6	8	10	21	4	21	6	4	..	2	39
		2	1	3	21	4	45
LITTLEBOROUGH	Under 5.. 5 upwards	..	4	1	1	3	1	..	2	..	..	..	..	..	10	1	..	6	12	5	10	..	1	2	4	..	1	27
		..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	4	..	1	50
LITTLE CROSBY	Under 5 5 upwards	1	1	1	1
	
LITTLE HULTON	Under 5 5 upwards	..	1	1	1	1	..	..	7	..	5	..	..	..	..	1	..	7	4	3	7	..	2	9	3	..	1	13
		1	20
LITTLE LEVER	Under 5.. 5 upwards	..	..	..	..	..	..	..	1	..	16	..	2	..	..	2	..	2	4	19	2	..	1	6	4	..	..	14
		..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	19
LITTLE WOOLTON ..	Under 5 5 upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	1	..	..	..	..	1	2
		2
LONGRIDGE	Under 5.. 5 upwards	..	3	..	1	2	1	..	1	..	5	..	1	..	..	6	..	1	1	1	..	9	2	6	..	..	..	16
		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	17
LYTHAM	Under 5.. 5 upwards	..	..	4	..	..	..	..	1	..	..	..	..	..	3	2	..	2	7	2	7	..	..	13	5	1	..	12
		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	46
MIDDLETON (Borough) ..	Under 5.. 5 upwards	..	14	1	2	4	1	..	..	..	19	2	..	..	42	1	..	2	27	13	57	..	57	5	11	..	4	43
		..	..	2	..	1	..	..	..	..	3	4	1	..	..	..	..	7	..	..	..	..	..	..	..	..	..	103

TABLE II.—Continued.

URBAN DISTRICTS.		Age at Death.	Mortality from subjoined causes, distinguishing Deaths of Children under five years of age.																	Suicides.	Accidents.	Heart Disease.	All other Diseases.		
			Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria & Mem. Croup.	Croup.	Typhus	Euteric	Other continued	Cholera.	Diarrhoea.	Enteritis.	Epidemic Influenza.	Puerperal Fever.	Erysipelas.	Phthisis (Pul. Tuberculosis).	Other Tubercular Diseases.					Cancer, malignant disease.	Bronchitis, Pneumonia, and Pleurisy.	Alcoholism, Cirrhosis of Liver.
MILNROW	Under 5.. 5 upwards	1	..	1	..	1	..	..	..	2	1	..	..	..	2	6	2	1	..	5	7	..	19	2	10
		..	..	..	..	1	..	..	..	..	..	..	..	..	2	..	..	1	..	..	8	..	1	3	46
MORECAMBE (Borough) ..	Under 5.. 5 upwards	1	1	1	..	2	..	..	..	..	6	..	..	..	1	18	1	3	1	14	4	..	27	3	21
		..	..	..	..	1	..	2	..	..	..	..	..	..	1	1	..	1	14	14	14	5	5	1	69
MOSSLEY (Borough)	Under 5.. 5 upwards	2	..	..	..	1	2	..	1	..	4	2	..	..	..	12	2	2	17	..	9	..	25	2	20
		..	..	..	..	2	2	..	..	..	..	2	2	..	1	..	..	2	..	..	36	..	..	..	54
MUCH WOOLTON	Under 5.. 5 upwards	..	..	..	4	1	..	..	..	..	7	..	..	2	..	7	1	1	3	..	6	..	9	..	6
		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	..	..	..	16
NELSON (Borough)	Under 5.. 5 upwards	20	2	2	1	7	..	..	..	..	20	3	..	..	..	1	6	5	18	..	25	..	1	2	59
		..	..	..	..	6	..	..	3	2	..	..	4	..	..	25	5	18	..	48	48	4	33	5	90
NEWTON-IN-MAKERFIELD.	Under 5.. 5 upwards	3	..	7	2	2	..	..	2	..	20	1	1	1	..	2	4	4	16	..	35	..	1	4	34
		..	..	..	1	1	..	..	2	..	2	1	1	2	2	21	4	4	..	18	18	1	14	5	55
NORDEN	Under 5.. 5 upwards	..	..	1	..	..	..	..	..	..	1	..	..	2	..	1	1	4	..	3	3	..	9	1	6
		..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	4	..	3	..	1	2	16
ORMSKIRK	Under 5.. 5 upwards	..	1	1	..	1	1	..	..	..	1	1	..	3	..	2	6	..	3	..	8	..	1	1	21
		..	..	..	..	1	..	..	..	..	..	1	..	..	..	6	..	..	..	..	6	..	20	1	37
ORRELL	Under 5.. 5 upwards	4	..	..	..	1	1	..	1	..	13	1	..	..	..	2	3	3	3	..	6	..	1	2	8
		..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	8	..	17	2	15
OSWALDTWISTLE	Under 5 5 upwards	13	..	..	4	..	..	3	..	..	25	1	1	..	..	1	8	7	12	..	17	..	15	1	34
		..	..	..	..	..	..	..	..	..	1	..	..	1	..	8	7	..	..	..	23	1	15	5	60

TABLE II.—Continued.

URBAN DISTRICTS.		Age at Death.	Mortality from subjoined causes, distinguishing Deaths of Children under five years of age.																									
			Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria & Mem. Croup.	Croup.	Fever.			Cholera.	Diarrhoea.	Enteritis.	Epidemic Influenza.	Puerperal Fever.	Dyspepsia.	Phthisis (Pul. Tuberculosis).	Other Tubercular Diseases.	Cancer, malignant disease.	Bronchitis, Pneumonia, and Pleurisy.	Alcoholism, Cirrhosis of Liver.	Heart Disease.	Accidents.	Suicides.	All other Diseases.		
ROYTON.....	Under 5	..	9	4	13	1	1	..	10	5	13	11	..	26	2	32
	upwards	..	..	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	8	8	5	49	2	5	..	..	77
ST. ANNES-ON-THE-SEA..	Under 5	..	1	1	2	1	1	8	2	10	1	..	15	1	..	1	7
	upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	9	9	1	2	2	..	35
SKELMERSDALE	Under 5	8	..	4	1	4	2	20	..	13	1	..	1	24
	upwards	1	10	10	..	3	3	..	1	20
STANDISH-WITH-LANGTREE.....	Under 5	..	1	1	1	..	1	6	1	..	2	3	9	..	5	..	3	2	..	1	22
	upwards	1	..	1	1	1	..	6	1	3	2	..	1	27
STRETTFORD	Under 5	..	3	2	6	5	2	2	21	1	1	2	1	6	30	17	..	4	4	64
	upwards	..	..	..	..	5	..	..	..	..	..	..	..	1	1	2	..	..	32	3	30	60	4	41	17	2	131
SWINTON AND PENDLEBURY	Under 5	..	25	2	7	1	8	60	4	..	4	3	26	18	48	..	3	6	..	2	76
	upwards	..	2	1	2	1	..	..	..	..	..	..	..	..	..	..	..	21	9	..	67	1	42	6	2	90	
THORNTON	Under 5	..	..	..	..	4	..	..	..	..	..	2	1	1	..	1	..	..	..	..	3	1	..	2	..	..	10
	upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	2	..	..	..	16
TOTTINGTON	Under 5	..	..	1	1	1	..	..	..	2	..	4	..	..	..	1	..	..	3	5	5	5	1	14	..	1	9
	upwards	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	..	2	2	5	12	1	14	..	1	31	
TRAWDEN	Under 5	..	1	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	2	2	2	5	..	..	2	8
	upwards	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	4	..	5	..	..	2	5
TURTON	Under 5	..	..	..	3	4	1	..	..	..	..	..	..	1	..	..	..	1	11	3	8	5	..	18	2	..	10
	upwards	..	..	..	..	4	..	..	..	..	..	..	..	1	..	..	..	..	3	..	32	3	18	2	..	2	51

TABLE II.—Continued.

Mortality from subjoined causes, distinguishing Deaths of Children under five years of age.																									
URBAN DISTRICTS.	Age at Death.	Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria & Mem. Croup.	Croup.	Fever.			Cholera.	Diarrhoea.	Enteritis.	Epidemic Influenza.	Puerperal Fever.	Erysipelas.	Phthisis (Pul. Tuberculosis).	Other Tubercular Diseases.	Cancer, malignant disease.	Bronchitis, Pneumonia, and Pleurisy.	Alcoholism, Chirrosis of Liver.	Heart Disease.	Accidents.	Suicides.	All other Diseases.
								Typhus	Enteric	Other continued.															
TYLDESLEY-WITH-SHARPLEY	Under 5...	..	24	..	1	1	..	..	..	6	..	22	6	..	..	..	3	16	..	23	..	1	2	..	26
	5 upwards	..	5	..	..	1	..	..	..	..	..	..	1	3	..	..	10	5	8	23	..	11	8	1	40
ULVERSTON	Under 5...	..	..	..	2	..	..	..	..	..	..	11	..	1	..	2	6	2	10	..	..	..	9	..	9
	5 upwards	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	1	10	14	3	10	..	..	54
UPHOLLAND	Under 5...	..	..	1	..	2	..	..	1	..	6	2	1	..	..	..	7	..	2	10	..	2	..	..	17
	5 upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	..	3	5	1	18
URMSTON	Under 5...	..	1	3	1	..	..	..	..	..	7	1	1	2	..	1	7	1	8	7	..	..	1	..	15
	5 upwards	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	3	8	16	1	10	..	..	25
WALTON-LE-DALE	Under 5...	..	3	..	..	..	1	..	5	..	17	2	2	..	..	..	10	8	9	6	..	13	2	2	20
	5 upwards	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	5	7	7	2	..	5	2	59
WARDLE	Under 5...	..	1	1	1	..	..	..	..	..	1	1	1	..	..	..	4	..	3	2	..	12	..	..	7
	5 upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	..	..	..	..	17
WATERLOO-WITH-SEAFORTH	Under 5...	..	7	1	7	1	1	..	3	..	26	1	1	..	..	..	15	7	14	14	..	..	2	..	47
	5 upwards	..	1	2	..	2	..	..	..	..	..	1	1	..	1	..	..	4	28	28	5	14	4	..	80
WESTHOUGHTON	Under 5...	..	2	2	..	2	..	..	2	..	12	1	1	..	..	..	1	..	5	21	..	..	6	2	26
	5 upwards	..	1	1	..	2	..	..	..	..	..	1	1	..	..	..	6	1	5	27	2	9	..	2	53
WHITEFIELD	Under 5...	..	..	..	..	..	..	..	1	..	7	..	..	..	2	..	7	1	6	15	..	1	3	1	8
	5 upwards	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	6	19	2	19	3	1	27
WHITWORTH	Under 5...	..	1	..	2	2	2	..	1	..	2	2	..	..	1	..	9	1	7	8	..	2	..	1	14
	5 upwards	..	..	..	1	1	..	..	..	..	..	..	..	..	1	..	..	1	..	33	..	8	..	1	54

TABLE II.—Continued.

URBAN DISTRICTS.	Age at Death.	Mortality from subjoined causes, distinguishing Deaths of Children under five years of age.																										
		Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria & Mem. (croup.	Croup.	Fever.			Cholera.	Diarrhea.	Enteritis.	Epidemic Influenza.	Puerperal Fever.	Erysipelas.	Phthisis (Pul. Tuberculosis).	Other Tubercular Diseases.	Cancer, malignant disease.	Bronchitis, Pneumonia, and Pleurisy.	Alcoholism, Cirrhosis of Liver.	Heart Disease.	Accidents.	Suicides.	All other Diseases.			
WIDNES (Borough)	Under 5 upwards	..	..	3	19	5	1	..	1	10	1	65	14	..	..	..	..	18	11	26	46	..	41	5	1	111	92	
		..	..	3	1	1	..	..	..	..	..	1	9	10	..	..	..	..	7	26	58	3	12	1	1	11	11	
WIDNELL	Under 5 upwards	..	3	1	2	2	..	..	..	1	..	1	..	..	1	..	..	2	1	7	6	..	1	..	..	..	6	8
		..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	6	..	..	..	1	1
WORSLEY	Under 5 upwards	..	..	1	3	1	..	..	2	..	..	14	1	2	..	..	2	3	13	8	29	..	11	1	5	1	23	47
		..	..	..	..	2	..	..	..	..	..	4	1	5	..	..	10	1	13	29	1	1	5	1	1	1	1	1

TABLE III.—DEATHS registered during the year 1906 in the **RURAL DISTRICTS** of the Administrative County of Lancaster, classified according to Ages and Localities, and showing also the Area and Population of such Localities, and the Birth-rate and Death-rate therein during the year.

NOTES.—(a) The Area and "Census" Population of each District are taken from the Census Return.

(b) The Deaths of Residents registered in Public Institutions beyond the limits of the Districts are included in these Tables, and the Deaths of Non-Residents registered in Public Institutions in the District are excluded.

RURAL DISTRICTS	Area in Statute Acres.	Population at all ages.			Annual Rates per 1000 of estimated population.					Rate of Infant Mortality measured by the proportion of deaths under 1 yr. to 1000 births.	Mortality from all causes at subjoined ages.						
		Census, 1901.	Estimate to middle of 1906.	Registered Births.	Birth- rate.	Death- rate.	Death- rate from the seven principal Zymotic Diseases.	Phtisis Death- rate.	Respi- ratory Death- rate.		At all Ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.
BARTON-ON-PON-IRWELL ..	6872	8065	8864	218	24.5	10.8	1.57	0.45	1.80	64	96	14	13	2	3	38	26
BLACKBURN	20150	8238	8238	192	23.3	13.8	0.97	0.60	1.82	93	114	18	7	1	1	33	51
BURNLEY	42325	17470	18000	429	23.8	14.8	1.72	0.55	2.77	121	267	52	28	32	28	81	46
BURY	12014	8088	8380	176	21.0	13.4	1.55	0.59	1.90	130	113	23	8	10	5	39	28
CHORLEY	39988	19310	20800	540	25.9	13.0	0.96	0.62	1.87	116	271	63	23	12	10	95	68
CLITHEROE (Lancashire portion)	32231	5845	5845	137	23.4	15.7	1.19	0.17	1.19	102	92	14	5	4	2	33	34
FYLDE	38768	10235	11045	246	22.2	12.0	1.08	Nil.	1.90	117	133	29	6	4	1	43	50
GARSTANG	57380	10437	10437	240	22.9	12.6	0.57	0.86	1.34	58	132	14	5	8	5	50	50
LANCASTER	54503	8837	8943	211	23.5	12.3	1.23	0.44	0.89	113	110	24	8	2	5	30	41
LEIGH.....	11574	8410	9000	276	30.6	14.8	2.44	0.77	1.55	166	134	46	15	7	3	34	29
LIMEHURST	4772	10338	10700	275	25.7	12.5	1.77	1.30	2.05	123	134	34	15	4	7	46	28

TABLE III.—*Continued.*

RURAL DISTRICTS	Area in Statute Acres.	Population at all ages.		Registered Births.	Annual Rates per 1000 of estimated population.				Rate of Infant Mortality measured by the proportion of deaths under 1 yr to 1000 births.		Mortality from all causes at subjoined ages.						
		Census, 1901.	Estimate to middle of 1906.		Birth- Rate.	Death- Rate.	Death Rate from the seven principal Zymotic Diseases.	Phthisis Death- Rate.	Respi- ratory Death- Rate.	At all Ages.	Under 1 year.	1 and 2 under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	
LUNESDALE	76267	6948	6948	125	17.9	12.3	0.71	0.28	1.29	72	86	9	8	2	3	32	32
*PRESTON	52929	15997	15997	411	25.6	14.5	1.25	0.31	2.50	131	232	54	23	13	9	61	72
SEFTON	14866	5808	5808	126	21.6	15.8	1.20	0.86	2.06	55	92	7	3	7	7	30	38
ULVERSTON	127871	17716	17716	390	22.0	14.0	0.33	1.07	1.91	97	249	38	11	9	23	69	99
*WARRINGTON	19360	10496	12247	295	24.0	12.5	0.89	0.32	2.20	135	154	40	13	8	5	49	39
WEST LANCASHIRE	62007	19689	20657	495	23.9	13.6	1.16	0.82	1.59	92	283	46	16	8	12	100	101
*WHISTON	31281	18961	20319	509	25.0	12.2	1.96	0.88	2.60	108	248	55	24	11	15	65	75
WIGAN	11695	6045	6709	199	29.6	12.2	0.59	0.44	2.38	100	82	20	6	..	3	30	23

* Population and Deaths in Public Institutions excluded.

TABLE IV.—DEATHS registered during the year 1906 in the **RURAL DISTRICTS** of the Administrative County of Lancaster, classified according to Diseases and Localities, and distinguishing Deaths of Children under five years of age.

RURAL DISTRICTS.		Age at Death.	Mortality from subjoined causes, distinguishing Deaths of Children under five years of age.																								
			Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria & Mem. Croup.	Croup.	Fever.			Cholera.	Diarrhoea.	Enteritis.	Epidemic Influenza.	Puerperal Fever.	Erysipelas.	Phthisis (Pul. Tuberculosis).	Other Tubercular Diseases.	Cancer, malignant disease.	Bronchitis, Pneumonia, and Pleurisy.	Alcoholism, Cirrhosis of Liver.	Heart Disease.	Accidents.	Suicides.	All other Diseases.	
BARTON-UPON-IRWELL.	Under 5. 5 upwards	..	1	2	3	1	..	..	..	..	..	..	6	..	..	..	..	4	1	11	3	..	1	..	..	9
			1	1	1	11	13	2	7	2	..	27
BLACKBURN	Under 5. 5 upwards	..	..	..	..	1	..	..	..	..	..	4	..	..	..	..	..	1	2	5	3	..	..	..	..	14
			1	2	1	4	5	12	1	13	2	..	45
BURNLEY	Under 5. 5 upwards	..	9	1	1	2	1	..	..	..	..	15	7	6	1	..	1	10	4	13	18	..	2	3	..	17
			1	2	2	9	1	8	4	13	32	2	31	8	..	69
BURY	Under 5. 5 upwards	..	3	..	..	1	..	..	..	..	2	..	..	..	..	..	..	5	2	7	5	..	..	3	..	13
			..	2	3	..	1	..	..	1	..	..	..	1	..	..	..	..	5	2	7	11	1	8	5	1	34
CHOBLEY	Under 5. 5 upwards	..	..	2	1	2	1	..	..	..	..	7	1	..	1	..	13	4	4	16	13	..	25	3	..	51
			..	..	1	..	4	..	..	2	..	..	..	1	..	..	2	..	26	2	16	26	..	..	15	2	73
CLITHEROE (Lancashire portion)	Under 5. 5 upwards	..	3	..	..	..	..	..	..	..	2	..	..	..	..	..	..	1	1	5	1	..	..	..	..	13
			1	..	1	2	1	..	5	5	6	..	5	1	..	47

TABLE IV.—Continued.

RURAL DISTRICTS.	Age at Death.	Mortality from subjoined causes, distinguishing Deaths of Children under five years of age.																								
		Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria & Mem. Group.	Croup.	Fever.			Cholera.	Diarrhoea.	Enteritis.	Epidemic Influenza.	Puerperal Fever.	Erysipelas.	Phthisis (Pul. Tuberculosis).	Other Tubercular Diseases.	Cancer, malignant disease.	Bronchitis, Pneumonia, and Pleurisy.	Alcoholism, (Pirrhosis of Liver.	Heart Disease.	Accidents.	Suicides.	All other Diseases.	
								Typhus.	Enteric.	Other continued.																
FYLDE	Under 5.. 5 upwards	..	..	..	2	1	..	..	1	..	..	7	..	2	5	7	..	1	2	5	7	..	1	..	..	16
GARSTANG	Under 5.. 5 upwards	..	2	1	3	..	..	..	..	..	..	..	2	3	..	3	1	8	4	3	11	3	28	4	3	7
LANCASTER	Under 5.. 5 upwards	..	..	1	2	1	..	..	2	..	..	5	..	..	4	1	..	4	3	7	1	..	10	..	..	20
LEIGH	Under 5.. 5 upwards	..	4	..	1	1	..	..	2	..	..	14	1	3	..	10	1	6	1	4	4	1	11	4	..	25
LINEHURST	Under 5.. 5 upwards	..	4	..	..	1	..	..	..	..	..	14	2	..	4	9	..	14	1	7	13	1	14	9	..	16
LUNESDALE	Under 5.. 5 upwards	..	..	1	..	1	1	..	1	..	..	2	..	..	1	2	..	2	1	6	2	..	2	1	3	8
PRESTON	Under 5.. 5 upwards	..	2	1	..	3	3	1	3	..	..	7	1	2	1	17	..	5	3	13	23	1	23	6	4	34
SEFTON	Under 5.. 5 upwards	..	..	..	..	1	..	..	2	..	..	4	1	..	1	2	..	5	3	5	2	..	12	9	1	4
ULVERSTON	Under 5.. 5 upwards	..	..	1	..	1	..	..	..	..	..	3	..	5	2	11	1	19	2	9	23	3	27	12	5	30
WARRINGTON	Under 5.. 5 upwards	..	..	1	..	..	..	..	..	..	..	9	..	1	1	12	..	4	1	9	15	..	17	2	1	26
		..	..	..	..	..	..	..	..	..	..	1	..	1	1	15	..	4	1	9	15	..	17	2	1	38

TABLE IV.—Continued.

RURAL DISTRICTS.		Mortality from subjoined causes, distinguishing Deaths of Children under five years of age.																									
		Age at Death.	Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria & Mem. Croup.	Croup.	Fever.			Cholera.	Diarrhoea.	Enteritis.	Epidemic Influenza.	Puerperal Fever.	Erysipelas.	Phthisis (Pul. Tuberculosis.)	Other Tubercular Diseases.	Cancer, malignant disease.	Bronchitis, Pneumonia, and Pleurisy.	Alcoholism, Cirrhosis of Liver.	Heart Disease	Accidents.	Suicides.	All other Diseases.	
WEST LANCASHIRE	Under 5...	..	3	..	3	..	1	..	..	3	..	8	1	..	..	..	..	..	17	2	17	7	..	1	2	..	32
	5 upwards	..	..	1	..	1	..	..	..	3	..	3	..	..	..	1	..	..	17	1	17	26	3	26	16	4	102
WHISTON	Under 5...	..	..	3	8	3	..	..	..	..	..	17	1	2	4	1	..	..	18	2	10	19	..	1	1	..	22
	5 upwards	..	..	1	..	1	..	..	..	1	..	1	2	4	1	1	..	..	18	2	34	34	1	16	13	1	57
WIGAN	Under 5...	..	..	..	..	1	..	..	..	..	..	2	1	..	1	..	1	..	..	..	..	9	..	..	..	..	12
	5 upwards	..	..	..	..	..	..	..	..	1	..	..	1	1	1	..	..	3	2	3	7	..	9	6	..	23	

TABLE V. DEATHS and CASES NOTIFIED (or ascertained) in the County Districts during the Year ending Dec. 31st, 1906.
* NOTE.—These figures represent the totals of the Returns supplied Monthly, and not the totals of the Annual Report Statistics.

Month.	Small-pox.		Diphtheria.		Membranous Croup.		Erysipelas.		Scarlet Fever.		Typhus.				Enteric.				Other or doubtful.				Puer-peral.		Measles.		Chicken Pox.		Whooping Cough.		Total of preceding columns.		Deaths from				Deaths from all Causes.																																																																																																																																																																																																																																																																																																																																																	
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† Notifiable in 5 districts. ‡ Temporarily notifiable in a few districts. § Cases reported voluntarily in a few districts.

SANITARY AUTHORITIES AND MILK SUPPLY.

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[Read at the Congress of the Royal Institute of Public Health, 1907.]

No subject can better engage the attention of Sanitary Authorities, at the present time, than that appertaining to the provision of safeguards for securing the purity of the milk produced in their districts. It is well known that milk is liable to many sources of contamination before it reaches the consumer, some of which come within the province of the Public Analyst, while others necessitate careful investigation by the Bacteriologist. Greater care on the part of the farmer has had the effect of reducing, within recent years, the frequency of outbreaks of milk-borne disease such as typhoid fever, scarlet fever, sore throat, and diphtheria, but the possibility of infected milk giving rise to tuberculosis and epidemic diarrhoea is becoming more and more recognised. The danger in respect of tuberculosis must be regarded as serious, taking into consideration the large number of milch cows in the United Kingdom suffering from the disease. The extent to which the udder is affected, and therefore liable to produce infective milk, amounts, according to Sir John McFadyean, to about 2 per cent., and on this basis Dr. Newman estimates that in 1901 there were more than 80,000 cows so diseased. "Placing the average annual yield of milk per cow at 400 gallons—a low figure—it would appear that from these 80,000 tuberculous udders some 32,000,000 gallons of milk are obtained, and while it cannot be proved that the whole of this milk is actually virulent, the bulk of it must at least be open to grave suspicion." * Even assuming that the percentage of cows with tuberculous udders has been reduced, by precautionary measures, to not more than half the above estimate, there still remains a large quantity of milk infected with tubercle bacilli now being retailed to the danger of the health of persons consuming it,

* Report of Committee of Royal Institute of Public Health on a clean milk supply

especially if very young, or suffering from ailments which necessitate a milk diet. Bearing in mind the many polluting influences liable to attack milk immediately it leaves the udder of the cow, it is highly important that provision should be made for enforcing the greatest cleanliness on the part of persons engaged in dairy operations, and for ensuring the cleanly condition and health of animals furnishing the supply.

Although "The Dairies, Cowsheds, and Milkshops Order, 1885," requires all Sanitary Authorities to register dairymen and others, and take certain precautions under Articles 8 and 9 for securing (*a*) the health and good condition of the cattle, (*b*) the cleanliness of milk vessels, and (*c*) the protection of milk against infection or contamination, experience shows that the provisions are not carried out in many districts with any degree of efficiency, and a considerable proportion of Authorities have also failed to exercise the permissive powers to make Regulations as to the inspection of cowsheds and the conditions relating to lighting, ventilation, and other matters conferred on them by Article 13 of the Order. As a result milk is not infrequently produced under circumstances which render its escape from serious contamination an impossibility. A remedy might be looked for if the Government would prescribe compulsory Regulations applicable to the whole country, and at the same time make provision for the veterinary inspection of all cowsheds and cows used for dairy purposes, but in order to ensure the most efficient control of the work, unhampered by local influences, the responsibility of supervision should rest with County Councils, or with one of the Government Departments.

Many of the County Boroughs in the County of Lancaster and other parts of England have during the last ten years sought to ensure the purity of milk coming from outside districts by exercising protective powers acquired under local Acts of Parliament, which authorise the Medical Officer of Health to inspect cows and take samples from any dairy supplying milk to his district although not situated within it, and if the milk is found likely to cause tuberculosis its further sale may be prohibited under penalty until the

danger has ceased to exist. There are other clauses as to the notification by the dairyman to the Medical Officer of Health of cows affected with or suspected of tuberculosis, and the furnishing of lists in certain cases of the farms from which a dairyman has obtained his supply of milk, which would be extremely useful if made applicable to the whole country.

The high infant mortality due to diarrhœa and mal-nutrition occurs mainly among hand-fed infants who have to subsist on cows' milk, which, in too many instances, is badly prepared and bacteriologically impure. Little trouble is experienced in the bringing up of babies suckled by their mothers, while those artificially fed are constantly ailing, and contribute enormously to the deaths classified under the head of diarrhœa. Municipal bodies in this country, commencing with St. Helens in 1898, and followed by Glasgow, Liverpool, Bradford, Battersea, and other places, have imitated the example of a number of towns in France and Germany in recognising the importance of providing an infant, deprived of its natural food, with a substituted milk sterilized and prepared in such a manner as to approximate as closely as possible to mother's milk. The provision of Infants' Milk Depôts by Local Authorities, with the attendant advantages, consisting of medical supervision and home visitation by Lady Inspectors, indicates an incursion into the domain of personal hygiene which may with advantage lead to the establishment of rate-aided infant homes or municipal crèches as in Paris, Lille, Elberfeld, Munich, and other Continental towns. Depôts provided by Local Authorities for the distribution of sterilized and humanized milk are destined to take a prominent place in the methods adopted to preserve the health of infants, for, if scientifically conducted, they will be the means of saving a vast amount of life which, with a continually decreasing birth-rate, must be regarded with the greatest satisfaction.

It is important that milk should be free from adulteration, either by admixture with water or the removal of cream, and there should also be a freedom from preservatives, as pointed out in a circular recently issued by the Local Government Board to Local

Authorities, under the Sale of Food and Drugs Acts. The Departmental Committee on Preservatives and Colouring Matters in Food in 1901 came to the conclusion that the addition of preservatives to milk was not necessary to the trade even in hot weather, and recommended that the addition of *any* preservative to milk should be considered an offence under the Sale of Food and Drugs Acts. The use of formaldehyde and boracic acid, the two preservatives usually found in milk, is of special interest as regards infants' milk, for it has been found by Dr. Leo Schaps (Dresden), that "formalin in small quantities, while undoubtedly preventing coagulation by the ordinary milk bacillus, does not at the same time prevent the growth of pathogenic bacilli, and therefore gives a false appearance to milk." Professor Delépine has also shown that bacilli typhosus and coli communis will multiply at a temperature of 65deg. F., in the presence of 140 grains per gallon of a mixture of borax and boric acid. Apart from the deleterious effects produced by preservatives, it must be borne in mind that, owing to the absence of curdling, due to admixture with formalin or boric acid, milk in which pathogenic organisms have been multiplying 30 or 40 hours, might be palmed on the unsuspecting public for consumption as fresh milk.

In order to place the milk trade on a proper basis, and safeguard the milk against the contaminating influences to which it is exposed, sanitarians are of opinion that the Regulations as to dairies, cowsheds, and milkshops, should be amended, and their carrying out made compulsory in all districts. Where it can be shown that the Authority of an urban or rural district, within a County administrative area, has been in default, the responsibility of enforcing the Order might with advantage devolve on the County Council, and it is generally believed that the inspection of cows, cowsheds, dairies, and the milk trade generally, would be best carried out by specially qualified Inspectors possessed of veterinary knowledge. As previously mentioned several large Authorities, as for instance Manchester, Liverpool, Sheffield, Salford, &c., have obtained from Parliament by local Acts special powers which relate, amongst other matters, to the prevention of the sale of milk from

diseased cows, and it is generally considered that these Clauses might be made applicable to the whole country. The National League for Physical Education and Improvement have given support to this idea and also adopted the following resolution, which has been long advocated by Medical Officers of Health :—

“That, instead of the present system of registration of cowkeepers, a system of annual licences should be substituted, renewable only if the premises are kept in a sanitary condition, as in the case of slaughterhouses.”
